



**ENGLISH**  
**ESPAÑOL**

OWNER'S MANUAL

# LG optimus F5



MFL67786901 (1.2)

[www.lg.com](http://www.lg.com)

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Group and its related entities. All other trademarks are the  
property of their respective owners.*

When using this product, the safety precautions below must be taken to avoid possible legal liabilities and damages.

Retain and follow all product safety and operating instructions. Observe all warnings in the product operating instructions. To reduce the risk of bodily injury, electric shock, fire, and damage to the equipment, observe the following precautions.

## **ELECTRICAL SAFETY**

This product is intended for use when supplied with power from the designated battery or power supply unit. Other usage may be dangerous and will invalidate any approval given to this product.

## **SAFETY PRECAUTIONS FOR PROPER GROUNDING INSTALLATION**

**CAUTION:** Connecting to improperly grounded equipment can result in an electric shock to your device. This product is equipped with a USB cable for connecting to a desktop or notebook computer. Be sure your computer is properly grounded (earthed) before connecting this product to the computer. The power supply cord of a desktop or notebook computer has an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet which is properly installed and grounded in accordance with all local codes and ordinances.

## **SAFETY PRECAUTIONS FOR POWER SUPPLY UNIT**

### **Use the correct external power source**

A product should be operated only from the type of power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult your authorized service provider or local power company. For a product that operates from battery power or other sources, refer to the operating instructions that are included with the product.

### Handle battery packs carefully

This product contains a Li-ion battery. There is a risk of fire and burns if the battery pack is handled improperly. Do not attempt to open or service the battery pack. Do not disassemble, crush, puncture, short external contacts or circuits, dispose of in fire or water, or expose a battery pack to temperatures higher than 60°C (140°F).

**WARNING:** *Danger of explosion if battery is incorrectly replaced. To reduce risk of fire or burns, do not disassemble, crush, puncture, short external contacts, expose to temperature above 60°C (140°F), or dispose of in fire or water. Replace only with specified batteries. Recycle or dispose of used batteries according to the local regulations or reference guide supplied with your product.*

### Take extra precautions

- Keep the battery or device dry and away from water or any liquid as it may cause a short circuit.
- Keep metal objects away so they don't come in contact with the battery or its connectors as it may lead to short circuit during operation.
- The phone should be only connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.
- Do not use a battery that appears damaged, deformed, or discolored, or one that has any rust on its casing, overheats, or emits a foul odor.
- Always keep the battery out of the reach of babies and small children, to avoid swallowing of the battery. Consult a doctor immediately if the battery is swallowed.
- Only use the battery with a charging system that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage or other hazard.
- Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.

- Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- If the battery leaks:

Do not allow the leaking fluid to come in contact with skin or clothing. If contact occurs, flush the affected area immediately with clean water and seek medical advice.

Do not allow the leaking fluid to come in contact with eyes. If contact occurs, DO NOT rub; rinse with clean water immediately and seek medical advice.

Take extra precautions to keep a leaking battery away from fire as there is a danger of ignition or explosion.

## SAFETY PRECAUTIONS FOR DIRECT SUNLIGHT

Keep this product away from excessive moisture and extreme temperatures. Do not leave the product or its battery inside a vehicle or in places where the temperature may exceed 140°F (60°C), such as on a car dashboard, window sill, or behind glass that is exposed to direct sunlight or strong ultraviolet light for extended periods of time. This may damage the product, overheat the battery, or pose a risk to the vehicle.

## PREVENTION OF HEARING LOSS

**CAUTION:** *Permanent hearing loss may occur if earphones or headphones are used at high volume for prolonged periods of time.*

## SAFETY IN AIRCRAFT

Due to the possible interference caused by this product to an aircraft's navigation system and its communications network, using this device's phone function on board an airplane is against the law in most countries. If you want to use this device when its use is restricted on board an aircraft, remember to switch to Airplane Mode which turns off RF functions that could cause interference.

## ENVIRONMENT RESTRICTIONS

Do not use this product in gas stations, fuel depots, chemical plants or where blasting operations are in progress, or in potentially explosive atmospheres such as fueling areas, fuel storehouses, below deck on boats, chemical plants, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders. Please be aware that sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

## EXPLOSIVE ATMOSPHERES

When in any area with a potentially explosive atmosphere or where flammable materials exist, the product should be turned off and the user should obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Users are advised not to use the equipment at refueling points such as service or gas stations, and are reminded of the need to observe restrictions on the use of radio equipment in fuel depots, chemical plants, or where blasting operations are in progress. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. These include fueling areas, below deck on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

## ROAD SAFETY

Vehicle drivers in motion are not permitted to use communication services with handheld devices, except in the case of emergency. In some countries, using hands-free devices as an alternative is allowed.

## SAFETY PRECAUTIONS FOR RF EXPOSURE

- Avoid using your phone near metal structures (for example, the steel frame of a building).
- Avoid using your phone near strong electromagnetic sources, such as microwave ovens, sound speakers, TV and radio.
- Use only original manufacturer-approved accessories, or accessories that do not contain any metal.
- Use of non-original manufacturer-approved accessories may violate your local RF exposure guidelines and should be avoided.

## INTERFERENCE WITH MEDICAL EQUIPMENT FUNCTIONS

This product may cause medical equipment to malfunction. The use of this device is prohibited in most hospitals and medical clinics.

If you use any personal medical device(s), consult the manufacturer of your device(s) to determine if the device(s) are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information. Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

## HEARING AIDS

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider, or call the customer service line to discuss alternatives.

## NON-IONIZING RADIATION

Your device has an internal antenna. This product should be operated in its normal-use position to ensure the radiative performance and safety from interference. As with other mobile radio transmitting equipment, users are advised that for satisfactory operation of the equipment and for personal safety, it is recommended that no part of the human body be allowed to come too close to the antenna during operation of the equipment. Use only the supplied integral antenna. Use of unauthorized or modified antennas may impair call quality and damage the phone, causing loss of performance and SAR levels exceeding the recommended limits as well as result in non-compliance with local regulatory requirements in your country. To assure optimal phone performance and ensure human exposure to RF energy is within the guidelines set forth in the relevant standards, always use your device only in its normal-use position. Contact with the antenna area may impair call quality and cause your device to operate at a higher power level than needed. Avoiding contact with the antenna area when the phone is IN USE optimizes the antenna performance and the battery life.

## HAC

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

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## Cautions

- ▶ The user interface of Google applications (Google Search, Google Maps, Navigation, etc.) can vary depending on its software version.
- ▶ Locations are inaccurate when GPS and Wi-Fi are not set to On.
- ▶ With the Android operating system, some available Play Store applications only operate correctly with phones that have a specific screen resolution. Please be advised that some of the applications on the Play Store may not be available for your phone due to an LCD resolution requirement that does not match your phone. In addition, please be aware that 3rd party applications with programming defects may cause issues with your phone, including lock-ups and resets.

## Technical Details

| CDMA Standard       | Designator                                                            | Description                                                                                                                                                    |
|---------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic Air Interface | TIA/EIA-95A<br>TSB-74<br>ANSI J-STD-008<br>TIA/EIA-IS2000             | CDMA Dual-Mode Air Interface<br>14.4kbps Radio Link Protocol and Inter-band Operations<br>IS-95 Adapted for PCS Frequency Band<br>CDMA2000 1xRTT Air Interface |
| Network             | TIA/EIA/IS-634<br>TIA/EIA/IS-651<br>TIA/EIA/IS-41-C<br>TIA/EIA/IS-124 | MAS-BS<br>PCSC-RS<br>Inter-system Operations<br>Non-Signaling Data Communications                                                                              |

|                                   |                                                                                   |                                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Service</b>                    | TIA/EIA/IS-96-B<br>TIA/EIA/IS-637<br>TIA/EIA/IS-657<br>IS-801<br>TIA/EIA/IS-707-A | Speech CODEC<br>Short Message Service<br>Packet Data<br>Position Determination Service (gpsOne)<br>High Speed Packet Data                                                                                                                                                                               |
| <b>1x EV-DO Related Interface</b> | TIA/EIA/IS-856<br>TIA/EIA/IS-878<br>TIA/EIA/IS-866<br>TIA/EIA/IS-890              | CDMA2000 High Rate Packet Data Air Interface<br>1x EV-DO Inter-Operability Specification for HRPD Access Network Interfaces<br>Recommended Minimum Performance Standards for HRPD High Rate Packet Data Access Terminal<br>Test Application Specification (TAS) for High Rate Packet Data Air Interface |

| <b>LTE Standard</b>        | <b>Designator</b>      | <b>Description</b>                                                                                                                                                                                                         |
|----------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Basic Air Interface</b> | TS 36.101<br>TS 36.104 | Evolved Universal Terrestrial Radio Access (E-UTRA);<br>User Equipment (UE) radio transmission and reception<br>Evolved Universal Terrestrial Radio Access (E-UTRA);<br>Base Station (BS) radio transmission and reception |

|                  |             |                                                                                                                                                                                                                               |
|------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conformance Test |             | <p>Evolved Universal Terrestrial Radio Access (E-UTRA);</p> <p>User Equipment (UE) conformance specification;</p> <p>Radio transmission and reception;</p> <p>Part 1: Conformance testing</p>                                 |
|                  | TS 36.521-1 | <p>Evolved Universal Terrestrial Radio Access (E-UTRA);</p> <p>User Equipment (UE) conformance specification;</p>                                                                                                             |
|                  | TS 36.521-2 | <p>Radio transmission and reception;</p> <p>Part 2: Implementation Conformance Statement (ICS)</p>                                                                                                                            |
|                  | TS 36.521-3 | <p>Evolved Universal Terrestrial Radio Access (E-UTRA);</p> <p>User Equipment (UE) conformance specification;</p> <p>Radio transmission and reception;</p> <p>Part 3: Radio Resource Management (RRM) conformance testing</p> |

## FCC RF Exposure Information

**WARNING!** Read this information before operating the phone.

In August 1996, the Federal Communications Commission (FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this phone complies with the FCC guidelines and those international standards.

## Vehicle-Mounted External Antenna

(Optional, if available.)

To satisfy FCC RF exposure requirements, keep 8 inches (20 cm) between the user / bystander and vehicle-mounted external antenna. For more information about RF exposure, visit the FCC website at [www.fcc.gov](http://www.fcc.gov).

### Part 15.19 statement

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that causes undesired operation.

### Part 15.21 statement

Changes or modifications that are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

### Part 15.105 statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If you experience interference with reception (e.g., television), determine if this equipment is causing the harmful interference by turning the equipment off and then back on to see if the interference is affected. If necessary, try correcting the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The **LG Optimus F5** operates on 4G network, based on Long Term Evolution (LTE) technology and Mobile Broadband 4G networks in the United States\*.

Now you can connect easily at high speeds to the Internet, your corporate Intranet, and your email while you're away from the office.

\* Service not available everywhere.

\* Information subject to change.

### **Wi-Fi Caution**

This device is capable of operating in 802.11a/n mode.

For 802.11a/n devices operating in the frequency range of 5.15 - 5.25 GHz, they are restricted for indoor operations to reduce any potential harmful interference for Mobile Satellite Services (MSS) in the US.

Wi-Fi Access Points that are capable of allowing your device to operate in 802.11a/n mode(5.15 - 5.25 GHz band) are optimized for indoor use only.

If your Wi-Fi network is capable of operating in this mode, please restrict your Wi-Fi use indoors to not violate federal regulations to protect Mobile Satellite Services.

## Phone Overview

### Front View



**NOTES** All screen shots in this guide are simulated. Actual displays may vary.

Instructions To perform tasks in this guide are based on the default phone settings and may change depending on the software version on your phone.

1. **Proximity Sensor** Senses proximity towards other objects (such as your head) so that touch commands are not accidentally activated during a call.
  - NOTES**
    - Do not block the sensor or near the sensor to avoid problems with the touchscreen.
    - The use of a film cover produced by manufacturers other than LG can cause a disturbance in touch operation, the display, etc.
2. **Quick Keys** Allow quick access to your most used applications. To add an icon, touch and hold the desired icon and drag it to the Quick Keys bar. Release it at the desired location. To remove an icon, touch and hold it, then drag it out of the Quick Keys bar.
3. **Back Key** Returns to the previous screen. Also closes pop-up display items, such as menus and dialog boxes.
4. **Home Key** Returns to the Home screen. If you're already viewing one of the Home screen extension canvases, it navigates you to the central Home screen canvas.
5. **Recent Apps Key** Opens the list of recently used applications.

6. **Menu Key** Opens an Options menu with options that affect the current screen or application. Touch and hold to access Google Now and Google search.
7. **Touchscreen** Displays all the information needed to operate your phone, such as applications, call status, date, time, signal status, and battery strength.
8. **Front Camera Lens** Use to take photos and video of yourself. Keep clean for optimal performance.
9. **Earpiece** Lets you hear callers and automated prompts.

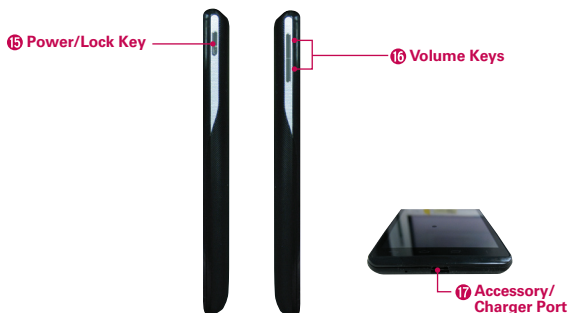
### Rear View



10. **3.5mm Headset Jack** Allows you to plug in an optional headset for convenient, hands-free conversations. You can also plug in headphones to listen to music.
11. **Back Camera Lens** Use for taking photos and recording videos. Keep clean for optimal performance.
12. **Back Cover** Encloses the battery compartment.
13. **Speaker** Allows you to hear sounds and ringers. It also allows you to hear the caller's voice when using Speaker mode.

14. **Microphone** Transmits your voice to the other caller and allows use for Voice-activated functions.

### Side View



15. **Power/Lock Key** Locks the screen with a single press. Press and hold to open the Phone options menu for the following options: Power off, Power off and restart, and Turn on/off Airplane mode. You can also change the ringer type from this menu.
16. **Volume Keys** Allow you to adjust the ringer, media volumes, or the in-call volume during a call.
17. **Accessory/Charger Port** Allows you to connect the phone charger, USB cable, or other compatible accessories.

## Installing the Battery and microSD Card

**NOTE** It is important to fully charge the battery before initial use of the phone.

### Installing & removing the battery

The phone comes with a rechargeable battery. Keep the battery charged while not in use in order to maximize talk, use, and standby time. The battery charge level is shown at the top right corner of the screen.



**1** Use the fingertip cutout at the bottom of the phone to remove the battery cover.



**2** Align the battery contacts with the terminals in the battery compartment and push the battery down until it clicks into place.



**3** Place the back cover over the battery compartment, then press it downward until it clicks into place.

### Inserting a microSD card

1. Remove the back cover (as demonstrated in the previous instructions) and locate the microSD card slot (microSD is inscribed near the slot opening).
2. Position the microSD card with the label side facing up and slide it into place until it is fully inserted and locked in place.

**NOTE** The microSD card can be easily damaged by improper operation. Please be careful when inserting, removing or handling it.

**NOTE** microSD cards are optional and sold separately.

### To remove the microSD card

1. You must first unmount the microSD card prior to removing it (see section below).
2. Remove the back cover and locate the microSD card slot.
3. Carefully pull the microSD card out to remove it.

## To unmount the microSD card

It is important to unmount the microSD card to avoid damage to it or data saved on the card.

1. From the Home screen, touch the **Apps Key** .
2. Touch **Settings**  > **Storage**.
3. Touch **Unmount SD card** > **OK**.



## Installing & removing the 4G micro-SIM card



1. Turn the power off and remove the back cover and battery (as demonstrated in the previous instructions).
2. Locate the 4G micro-SIM card slot (a SIM card graphic is inscribed near the slot opening).
3. Position the 4G micro-SIM card with the label side facing up and slide it into place until it is fully inserted and locked in place.
4. Gently slide the 4G micro-SIM card out to remove it.

## Charging the Phone

Your device comes with an adapter and a USB cable which connect together to charge your phone. To charge your phone:

### NOTICE

Please only use an approved charging accessory to charge your LG phone. Improper handling of the Accessory/Charger Port, as well as the use of an incompatible charger, may cause damage to your phone and void the warranty.

1. Connect the USB cable into the adapter. When connecting, as shown below, the LG logo on the USB cable should face toward you.



2. Plug the USB cable (as shown below) into the phone's Accessory/Charger port.

**NOTE**

Make sure that the 'B' side is facing toward you when inserting the USB cable into the phone.



## Charging with USB

You can use your computer to charge your phone. To be able to charge with the USB cable, you need to have the necessary USB drivers installed on your PC first. Connect one end of the USB cable to the Accessory/Charger Port on your phone and connect the other end to a USB port on your PC. It is best to use the rear USB port when connecting to a desktop PC. The USB hub should be powered by an external power source.

## Optimizing Battery Life

You can extend your battery's life between charges by turning off features that run in the background. You can also monitor how applications and system resources consume battery power.

### To stop applications from running in the background

From the Home screen, touch the **Apps Key**  > **Settings**  > **Application manager** > **RUNNING** tab and select the items that are no longer in use and touch **Stop**.

### Tips to extend the life of your battery

- ▶ Turn off radio communications that you aren't using. If you aren't using Wi-Fi, Bluetooth, or GPS, use the Settings menu to turn them off (Note that the GPS receiver is only turned on when you're using an application that makes use of it).
- ▶ Turn down screen brightness and set a shorter screen timeout.

- ▶ Turn off automatic syncing for Gmail, Calendar, Contacts, and other applications if you don't need it.

### To check the battery charge level

- ▶ From the Home screen, touch the **Apps Key**  > **Settings**  > **About phone** > **Battery**.

The battery status (Charging or Discharging) and level (as a percentage of fully charged) will be displayed at the top of the screen.

### To monitor and control what uses the battery

The Battery use screen allows you to see which applications are consuming the most battery power. Information on this screen allows you to identify downloaded applications you may want to turn off when not being used, so you can get the most out of your battery power.

- ▶ From the Home screen, touch the **Apps Key**  > **Settings**  > **About phone** > **Battery** > **Battery use**.

The screen will display battery usage time. A list of applications or services using battery power are displayed in order of energy used, from greatest amount to least.

- ▶ Touch an application in the Battery use screen to see the details about its power consumption. Different applications offer different kinds of information and they may even include options to modify the settings so you can reduce power consumption by that application.

### Setup Wizard

The first time you turn on your phone, the Setup Wizard guides you through signing in to your Google Account. If you don't have one, don't worry, the Setup Wizard will help you create one.

**NOTE** This phone supports several applications and services. It is recommended that you purchase a data plan that meets your needs. Contact your service provider for details.

1. Press and hold the **Power/Lock Key**  on the right edge of your phone to turn it on.



2. Follow the Setup Wizard to configure your phone set up including creating or logging in to your Google Account.

**NOTE** If you have an existing Google Account, your contacts from that account are synced to your phone.

## Turning the Phone On and Off

### Turning the phone on

- ▶ Press and hold the **Power/Lock Key**  for a couple of seconds until the screen turns on.

### Turning the phone off

1. Press and hold the **Power/Lock Key**  until the Phone options menu appears.
2. Touch **Power off**.
3. Touch **OK** to confirm that you want to turn off the phone.

### To unlock the phone

If you don't use the phone for a while, the screen and backlight will shut off to conserve battery power. To unlock the phone:

1. Press the **Power/Lock Key** .  
Your Lock Screen will appear.
2. Swipe in any direction to unlock.  
The last screen you were working on opens.

**NOTE** This is the default Lock Screen. If you've set up an Unlock Pattern, use your fingertip to draw the pattern.



### To turn the phone sounds off

If you're in a place where your phone sounds may disturb others, you can quickly silence your phone from the Home screen.

From the Home screen, press and hold the **Power/Lock Key** , then touch .

**OR**

Press the **Volume Down Key**  until all sounds are turned off or vibration is set.

**OR**

Open the Notifications panel and touch the Sound icon until  is displayed.

## Setting Up Your Device

When you turn on your wireless device for the first time, you have the option to quickly set up various accounts. Simply follow the on-screen instructions to complete the initial setup of your wireless device.

### To set up your device, follow the steps below:

1. On the Welcome screen, select your language and touch **Next**. You can also tap **Accessibility** to set any accessibility options.
2. Set your internet connection settings and touch **Next**.
3. Tap **Yes** if you have a Google Account, then enter your account information and tap . Otherwise, tap **No** if you do not have a Google Account. Then tap **Get an account** to create one or **Not now** to skip to the next step. With a Google Account, Google applications are automatically synced between your phone and computer regardless of where you make an update.
4. Set your Google location settings and touch **Next**.
5. Set up your email accounts and touch **Next**.
6. Touch **Done** to start using the phone.

### Setting up your Google Account

1. At the setup screen, touch **Existing** or **New**.
2. Enter your username and password and any other necessary information (if creating an account).

**NOTE** Touch the **Back Key**  to close the keyboard.

### 3. Touch

Now your Gmail, Google Contacts, and Google Calendar events will all be loaded to your phone automatically.

You can use the area below to record your Google Account information for future reference.

Username: \_\_\_\_\_@gmail.com

Password: \_\_\_\_\_

### Your Google Account

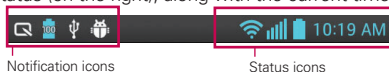
You must sign into a Google Account to use Gmail, Google Talk, Google Calendar, and other Google apps; to download applications from Play Store; to back up your settings to Google servers; and to take advantage of other Google services on your phone.

#### IMPORTANT

- If you want to restore your settings to this phone, from another phone that was running Android release 4.0 or later, you must sign into your Google Account now, during setup. If you wait until after setup is complete, your settings are not restored.
- If you don't have a Google Account, you're prompted to create one.
- If you have an enterprise account through your company or other organization, your IT department may have special instructions on how to sign into that account.
- When you sign in, your contacts, Gmail messages, Calendar events, and other information from these applications and services on the web are synchronized with your phone.
- If you don't sign into a Google Account during setup, you are prompted to sign in or to create a Google Account the first time you start an application that requires one, such as Gmail or Play Store.
- When you sign in, you're prompted to enter your username and password, using the on-screen keyboard.

## Phone's Status Icons

The Status Bar appears at the top of every screen. It displays icons indicating that you've received notifications (on the left) and icons indicating the phone's status (on the right), along with the current time.



If you have more notifications than can fit in the Status Bar, a plus icon  prompts you to open the Notifications panel to view them all.

The following icons indicate the status of your phone.

### Call icons

|                                                                                   |                               |                                                                                   |                                |
|-----------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------|--------------------------------|
|  | Mute microphone during a call |  | Missed call                    |
|  | In call                       |  | In call using Bluetooth device |
|  | Speaker on                    |                                                                                   |                                |

### Calendar & Alarm icons

|                                                                                   |           |                                                                                   |                |
|-----------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------|----------------|
|  | Alarm set |  | Calendar event |
|-----------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------|----------------|

### Email & Messaging icons

|                                                                                     |                              |                                                                                     |                                         |
|-------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------|
|    | New Email received           |    | Sending Email failed                    |
|  | Sending message failed       |  | New text or multimedia message received |
|  | Google Talk message received |  | New voicemail received                  |

### Sound icons

|                                                                                     |               |                                                                                     |                      |
|-------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|----------------------|
|  | Music playing |  | Silent mode          |
|  | Vibrate mode  |  | Phone jack connected |

## Network icons

|                                                                                   |                                     |                                                                                   |                                        |
|-----------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------|
|  | 4G network connected                |  | 4G network in use                      |
|  | Downloading data through 4G network |  | Uploading data through 4G network      |
|  | EVDO network connected              |  | Using EVDO data network                |
|  | Download through EVDO data network  |  | Upload through EVDO data network       |
|  | Downloading data                    |  | Uploading data                         |
|  | GPS on                              |  | Searching the current location via GPS |
|  | No service                          |  | Strong network signal                  |
|  | Airplane mode                       |  | Roaming                                |

## Connectivity icons

|                                                                                   |                         |                                                                                   |                            |
|-----------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------|----------------------------|
|  | Weak Wi-Fi signal       |  | Strong Wi-Fi signal        |
|  | USB debugging connected |  | USB connected              |
|  | Bluetooth on            |  | Bluetooth device connected |
|  | Portable Wi-Fi hotspot  |                                                                                   |                            |

## System icons

|                                                                                     |                              |                                                                                     |                   |
|-------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|-------------------|
|  | More notifications available |  | System secured    |
|  | System error                 |  | Preparing SD card |
|  | SD card error                |  | No SIM card       |
|  | Unknown SIM card             |  | Sync in process   |
|  | Sync error                   |  | Battery empty     |
|  | Battery full                 |  | Battery charging  |

## Getting to Know the Home Screen

The Home screen is your starting point to access all the features on your phone. It displays application shortcuts, icons, widgets, and other features.

### Status Bar

Shows device status information, including the time, signal strength, battery status, and notification icons.

### Application Icon

Touch an icon (application, folder, etc.) to open the application and use it.

### Quick Keys

Provide easy, one-touch access to the functions you use the most.

### Apps Key

Touch to open the Applications screen to view all of your installed applications.



## Quick Keys

The Quick Keys are located at the bottom of the Home screen.

- : Opens the **Phone** application which displays the dial pad so you can dial an unsaved number. It also provides additional tabs to access the Call logs, Contacts, and your Favorites.
- : Opens the **Contacts** application. You can access Dial, Call logs, and Favorites by touching the tabs across the top of the screen.
- : Opens the **Messaging** application so you can send and receive text and multimedia messages.
- : Opens the **Apps** screen and displays all pre-installed and downloaded applications.

**NOTE** To add an icon, touch and hold the desired icon and drag it to the Quick Keys bar. Release it at the desired location. To remove an icon, touch and hold it, then drag it out of the Quick Keys bar.

## To return to the Home screen

- ▶ Touch the **Home Key**  at any time, from any application.

## To view other Home screen canvases

- ▶ Slide your finger left or right across the Home screen. The Home screen spans seven screen widths, allowing more space for icons, widgets, shortcuts, and other items.



Home Screen Pane Indicator

The bars near the bottom of the screen indicate which Home screen panel you are viewing.

**TIP!** Pinch in on the Home screen to display the mini canvas view, then touch the Home screen canvas you want to view. Touch and hold the panel you want to edit. Drag the panel to Remove icon on the top to delete.

Touch here to add another panel.

Touch here to set the default home screen canvas.



## Touchscreen

Your touchscreen provides an excellent way to interact with and use your Android phone. With the touch of your finger, you can download and use available applications, make menu selections, and access data saved to your phone.

The following terms are used for describing the different available actions using the touchscreen:

**Touch** A single finger touch selects items. For example, touch an icon (e.g., application or menu item), touch words (e.g., menu selection or to answer onscreen question), or touch letters and numbers to type.

**Touch and hold** Touch and hold an item on the screen by touching it and not lifting your finger until an action occurs. For example, to open a Context menu for editing a contact, touch and hold a contact entry until the menu pops up.

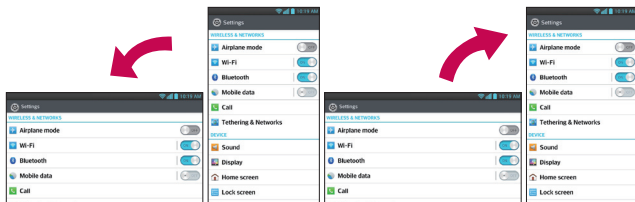
**Drag** Touch and hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. You can drag items on the Home screen to reposition them.

**Swipe or slide** To swipe or slide, quickly move your finger across the surface of the screen, without pausing when you first touch it (so you don't drag an item instead). For example, you can drag or slide the screen up or down to scroll a list or browse through the different Home screen canvases by swiping from left to right (and vice versa).

**Double-tap** Double-tap to zoom a web page or a map. For example, quickly double-tap a section of a web page to zoom that section to fit the width of the screen. You can also double-tap to control the zoom in Maps and in other applications.

**Pinch-to-Zoom** Use your index finger and thumb in a pinch or spread motion to zoom in or out when using the a map or photos.

**Rotate the screen** From many applications, the orientation of the screen rotates with the phone as you turn it from upright to sideways and back again.



Rotate the phone sideways for landscape orientation.

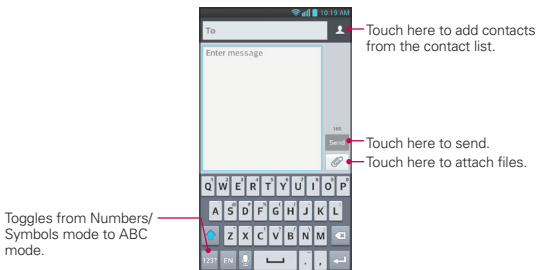
Rotate the phone upright for portrait orientation.

**Capturing the screen** If you press the **Volume Down Key** and **Power/Lock Key** at the same time, the current image on the screen is captured. You can find the captured image in the Gallery (Note that you cannot capture an image from some videos and applications).

## Text Input Methods

### On-screen Keyboard

You can easily enter text using the on-screen keyboard. The on-screen keyboard displays automatically on the screen when you need to enter text. To manually display the keyboard, simply touch a text field where you want to enter text.

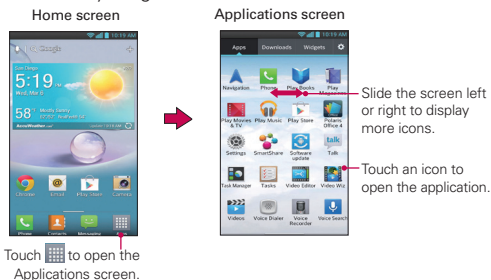


| Typing tips               |                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enter other characters    | Touch  to view the Numbers/Symbols Keyboard. Then touch  to view additional symbols.                                                                     |
| Enter one capital letter  | Touch  to capitalize the next letter. The <b>Shift Key</b> will change to .                                                                              |
| Enter all capital letters | Touch the <b>Shift Key</b> until  is displayed. Touch again to revert to lowercase.                                                                      |
| Highlight text            | Double-tap a word to highlight it. To highlight a range of text, double-tap a word, then drag the blue highlight markers to highlight the text you want. |
| Cut or copy selected text | Highlight the desired text, then touch <b>Cut</b> or <b>Copy</b> .                                                                                       |

|                          |                                                                                                                                                                                                                                                                                               |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paste cut or copied text | Touch the location to place the cursor where you want to paste the text. Then touch and hold the location and select <b>Paste</b> .                                                                                                                                                           |
| Delete a character       | Touch the <b>Delete Key</b>  .                                                                                                                                                                               |
| Language toggle          | <p>Touch and hold the Language Key  to open a dialog box to set the languages to toggle between.</p> <p><b>NOTE</b> This key is only available when multiple languages have been enabled for text entry.</p> |

## Applications: How to View, Open and Switch

All of the applications on your phone, including any applications that you downloaded and installed from Play Store or other sources, are grouped together on the Applications screen, which you access from your Home screen. Swipe to the left or right to view more applications. You can also touch the **Downloads** tab to display only downloaded applications or the **Widgets** tab to view only widgets.



## Your Home screen

### Customizing an application icon from the Home screen



You can further personalize the Home screen by editing application icons using the images in your Gallery.

1. Touch and hold an icon until the canvas grid is displayed, then release the icon. An editing icon  appears at the upper right side of the application icon.
2. Touch the icon and select the desired icon design.

## OR

Touch **Create photo icon** and select **Take photo** to open the Camera application and take a picture or **Select from Gallery** to choose one of the available photos.

**NOTE** Touch  to select bigger icons.

## Opening and Closing the Applications screen

### Opening the Applications screen

It's easy to access the Applications screen no matter what feature you're currently using. Simply touch the **Home Key** , then touch the **Apps Key**



### Closing the Applications screen

To manually close the Applications screen, touch the **Home Key** .

**NOTE** The Applications screen closes automatically when you touch an icon to open its application. Dragging an icon onto your Home screen also closes the Applications screen automatically.

## Customizing the Applications screen

The phone includes a wide variety of applications and you can download even more applications to your device. You can customize these items on the Applications screen for faster access (less scrolling) to the applications you use most often.

### Rearranging the Applications screen icons

You can rearrange the order of the icons on the Applications screen to provide more convenient access to the applications you use the most.

1. From the Home screen, touch the **Apps Key** .
2. Touch the **Apps** tab (if necessary), then touch the **Settings** icon  at the

top right of the screen. The Settings icon changes to a checkmark .

3. Touch and hold the application icon you want to move, drag it to its new position, then lift your finger. The remaining icons shift to the right.

**NOTE** If you drag the application icon onto another application icon, a folder is created with both of the applications in it.

## Sorting applications

You can sort all of your application icons on the Applications screen by alphabetical order or installation date.

1. From the Home screen, touch the **Apps Key**  to open the Applications screen.
2. Touch the **Menu Key**  > **Sort by** > **Alphabetical** or **Download date**.

## Changing the icon size

You can change the size of the icons on the Applications screen.

1. From the Home screen, touch the **Apps Key**  to open the Applications screen.
2. Touch the **Menu Key**  > **Show small icons (Show large icons)** > **OK**.

## Changing the Applications screen wallpaper

You can personalize the Applications screen further by changing the wallpaper.

1. From the Home screen, touch the **Apps Key**  to open the Applications screen.
2. Touch the **Menu Key**  > **Apps wallpaper**.
3. Select from the available wallpapers.
4. Touch **Apply**.

## Checking application information

To check on an application's information from the Applications screen:

1. From the Home screen, touch the **Apps Key** .
2. Touch the **Apps** tab, then touch the **Setting** icon  at the top right of the screen. The Settings icon changes to a checkmark .
3. Touch any of the application icons to display an information dialog box.
4. Touch **OK** to exit.

## Opening and Switching Applications

Multi-tasking is easy with Android™ because open applications keep running even when you open another application. There's no need to quit an application before opening another. You can use and switch among several open applications. Android manages each application, stopping and starting them as needed, to ensure that idle applications don't consume resources unnecessarily.

### Opening an application

- ▶ Open an application simply by touching its icon on the screen.

**TIP** You can customize your Home screen with the application icons you use most often. Applications are located on the Applications screen, but you can copy any application icon to your Home screen for faster access. No matter where the icon is, on the Applications screen or your Home screen, just touch it to open and use it.

### Opening multiple applications

1. Touch an application icon to open it.
2. Touch the **Home Key** .

**NOTE** If the application icon you want is on your Home screen, simply touch the icon to open and use it.

3. From the Home screen, touch the **Apps Key** .
4. Touch the icon for the other application you want to open.

## Adding application icons to the Home screen

Customize your Home screen with the applications you use most often.

1. Open the Applications screen.
2. Touch and hold the application icon you want to add to your Home screen. The Applications screen will close so that you can place the icon on the Home screen.
3. Lift your finger to place it or drag the icon to where you want it on the screen, then lift your finger.

## Moving applications to other Home screen canvases

You can place application icons on any of the Home screen canvases.

- ▶ **Drag:** Touch and hold, then drag the icon to the left or right edge of the screen to advance to the other screen canvases before lifting your finger.
- ▶ **Tilt:** Touch and hold an item, then tilt the device to move it to one of the Home screen canvases in that direction, then lift your finger.

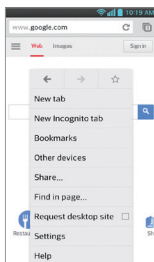
**NOTE** To be able to use the Tilt method, the **Move Home screen items** function needs to be activated. From the Home screen, touch the **Menu Key**  > **System settings** > **Gestures** > **Move Home screen items** checkbox.

## Working with Menus

There are two kinds of Android menus: Options menus and Context menus.

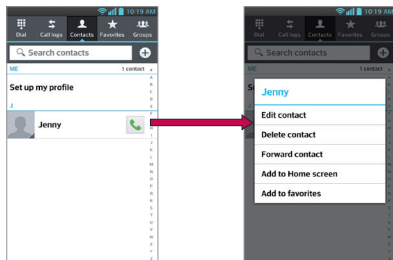
### Options menus

Options menus contain tools that apply to the activities of the current screen or application, not to any specific item on the screen. To open the available options menu, touch the **Menu Key** . Not all applications have Options menus; if you touch the **Menu Key**  on a screen that has no Options menu, nothing will happen.



### Context menus

Context menus contain options that apply to a specific item on the screen. To open a Context menu, touch and hold an item on the screen. Not all items have Context menus. If you touch and hold an item that has no Context menu, nothing will happen.



## Managing Notifications

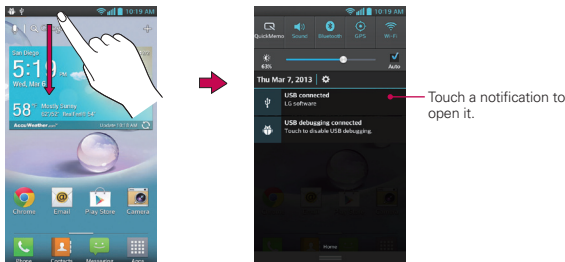
Notification icons report the arrival of new messages, calendar events, alarms, as well as ongoing events, such as when you are in a call.

When you receive a notification, the notification icon will be displayed in the Status Bar. You can open the Notifications panel to view a list of all recent notifications. Depending on your settings, you may hear a notification sound and/or the phone may vibrate.

### To open the Notifications panel

- ▶ Touch and drag the Status Bar to the bottom of the screen.

The Notifications panel displays a list of your current notifications, organized into ongoing and event-based notifications.



### To respond to a notification

1. Open the Notifications panel. Your current notifications are listed in the panel, each with a brief description.
2. Touch a notification to view it.

The Notifications panel will close and the application that corresponds to your response will open. For example, new voicemail notifications dial your voicemail box and Gmail notifications open the Gmail application so you can read your new messages.

## To clear all notifications

1. Open the Notifications panel.

2. Touch the **Clear** icon .

All event-based notifications will be cleared; ongoing notifications will remain in the list.

**TIP** You can also swipe the notifications to the left or right to remove them.

## To close the Notifications panel

Touch and drag the Notification panel handle  at the bottom of the Notifications panel to the top of the screen or just touch the **Back Key** . The panel will also close when you touch a notification.

**NOTE** The Notifications panel handle at the bottom of screen is sensitive to the drag motion so just beginning the upward drag will close the panel.

## Quick settings on the Notifications panel

The top of the Notifications panel includes a Quick settings bar. The icons in this bar provide a quick, convenient way to change settings without accessing any applications. The Quick settings bar icons include QuickMemo, Wi-Fi, Bluetooth, GPS, Sound profile, Airplane mode, Accounts & sync, Auto-rotate screen, Mobile data, and Power saver. If you set more than four icons on the bar, swipe left and right to scroll through the list. Touch **Edit** , then tap **More**  to add items you want displayed in the Quick settings bar.

Tap any of the Quick settings icons to toggle through the available settings.

## Searching Your Phone and the Web

You can search for information on your phone and on the web by using the Google search application.

Some applications, such as Gmail, Contacts, and have the ability to search contents within those specific applications.

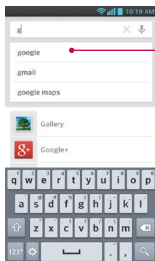
You can conduct the search by typing in the search terms or saying what you're looking for. As you enter text, the search application can provide suggestions so you don't necessarily have to type out your full request.

### Phone and Web search using text entry

1. Touch the **Search Widget**  at the top of the Home screen or touch and hold the **Menu Key** .

The Quick Search Box will open automatically.

2. Enter the text you're searching for in the Quick Search Box.



As you type, search results from your phone, previous search terms, and web search suggestions appear. Touch an item to activate that search result.

3. Touch  to search for the entered terms.

## Locking the Screen

You can lock your screen so that only you can unlock it to make calls, access your data, buy applications, and prevent unauthorized use.

### Setting a lock screen

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Lock Screen**.
2. Touch **Select screen lock**.
3. Touch **None**, **Touch and hold**, **Swipe**, **Face Unlock**, **Pattern**, **PIN** or **Password**.

**None:** No lock screen is enabled so the screen will never be locked from use.

**Touch and hold:** Touch and hold the lock screen to unlock it.

**Swipe:** A swipe motion in any direction on the touchscreen will unlock the screen.

**Face Unlock:** Unlocks the screen using face recognition. Keep in mind that Face Unlock is less secure than a pattern, PIN or password because it uses generalized shapes and dimensions to verify your face.

**Pattern:** Unlocks the screen using a pattern you draw with your finger. The first time you set an unlock pattern, you will see a tutorial with instructions on how to create it. Read the tutorial and touch the **Next** button. Draw your pattern (connect at least 4 dots) and touch the **Continue** button. Then redraw your pattern and touch the **Confirm** button.

**NOTE** Follow the on-screen instructions to create a backup PIN number in case you forget your pattern.

**PIN** Unlocks the screen with a number sequence. Enter a PIN (at least 4 digits) and touch the **Continue** button. Reenter your PIN and touch the **OK** button to confirm it.

**Password** Unlocks the screen with an alphanumeric sequence. Enter a password (at least 4 characters) and touch the **Continue** button. Reenter your password and touch the **OK** button to confirm it.

From then on, any time you wish to turn the phone on or unlock the screen, you will need to draw your unlock pattern or enter your PIN or password to unlock the screen.

- NOTES**
- You have 5 opportunities to enter your unlock pattern, PIN or password. If you used all the 5 opportunities, you can try again after 30 seconds.
  - When you can't recall your unlock pattern:
    - If you've created a Google Account on the phone, touch **Forgot pattern?**. Then you are required to sign in with your Google Account or enter your backup PIN to unlock your phone.
    - If you haven't created a Google Account on the phone, you need to perform a factory reset (Caution: If you perform a factory reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a factory reset).

## Hard Reset (Factory Reset)

1. Turn the power off.
2. Press and hold the following keys at the same time:  
**Power/Lock Key**  + **Volume Down Key** .
3. Release the keys when the **FACTORY HARD RESET** screen is displayed.
4. Press the **Power/Lock Key**  to continue or the **Volume Keys**  to cancel.

## Changing Your PIN or Password

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Lock screen**.
2. Touch **Select screen lock**.
3. Enter your current unlock sequence.
4. Touch **PIN** to change your number lock sequence or touch **Password** to change your alphanumeric lock sequence.
5. You're prompted to enter and reenter your new lock sequence.

From then on, you will need to enter that sequence and touch the **OK** button to unlock the screen.

- NOTES** If you have set up a Microsoft Exchange account, you are only allowed to set up a password to unlock the screen.

## Customizing the Home Screen

You can personalize your Home screen by adding application icons, shortcuts, widgets, and other items to any Home screen canvas. You can also change the wallpaper.

### To add an item to the Home screen

1. Go to the Home screen canvas where you want to add the item.
2. Touch **Add** . Or just touch and hold an empty spot on the Home screen canvas.

**NOTE** If space is not available on a particular Home screen canvas, you must delete or remove an item before you can add another item. Or switch to another Home screen canvas.

3. In the menu that opens, touch the desired tab.



Slide the screen right or left to view different screen.

Touch and hold the icon and drag it at the screen you want to put.

Touch to access different tabs.

4. Touch and hold the desired item and drag it to the Home screen.

### To remove an item from the Home screen

1. Touch and hold the item.
2. Drag the item to the **Remove** icon  at the top of the screen.
3. When the **Remove** icon changes to , lift your finger.

### To change the look of your Home screen

From the Home screen, touch the **Menu Key**  > **Home screen settings** to access **Theme**, **Animation**, **Screen swipe effect**, **Wallpaper**, **Portrait view only**, **Scroll screens circularly** and **Home backup & restore**.

## QuickMemo

The QuickMemo feature allows you to create memos and capture screen shots. You can use QuickMemo to easily and efficiently create memos during a call, with a saved picture or on the current phone screen.



1. Access the QuickMemo feature by dragging the Status Bar downward then tap the Quickmemo icon.



2. Tap an option at the top of the screen (e.g., Pen type and color) to create your memo.



3. When your memo is complete, tap **Save** to save it to your Gallery.

**NOTE** Please use a fingertip while using the QuickMemo function. Do not use your fingernail.

## Using the QuickMemo options

While using the QuickMemo function, the following options are available:

- Tap to select whether to use or not use the background screen.
- Touch to keep the memo on top and continue using the phone.
- Tap to undo the most recent action.
- Tap to redo the most recently deleted action.
- Tap to select the pen type and color.
- Tap to use the eraser to erase the memo that you created.
- Tap to share the memo with others via any of the available applications.
- Tap to save the memo you've created.
- Drag each corner to crop the image.

## Viewing the saved QuickMemo

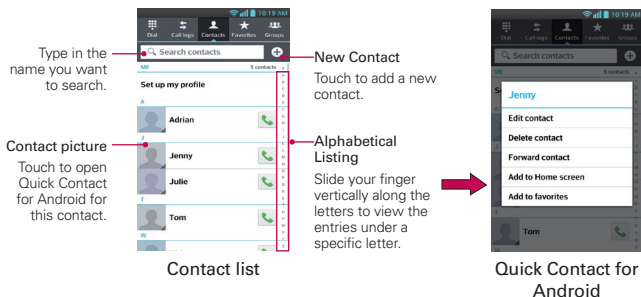
Open the **Gallery** and select the **QuickMemo** album.

## Connecting Quickly With Your Contacts

As you build up your list of contacts on your phone, you can use the Quick Contact for Android feature to quickly chat, email, text message, place a call, or locate your contacts. Quick Contact for Android is a special set of icons that you can use to quickly and easily connect with a contact.

- Open your Contacts list and touch the contact's picture.

Touching the contact's picture opens a Quick Contact dialog box displayed with icons for all of the ways you can communicate with that contact. The available icons depend on the information you have saved for that contact.



**TIP** Adding a shortcut for a contact to your Home screen allows you to open Quick Contact for that contact without opening the **Contacts** application.

## Connecting to Mobile Networks

When you buy your phone and sign up for service, your phone is configured to use your provider's mobile networks for voice calls and for transmitting data.

Different locations may have different mobile networks available.

Initially, your phone is configured to use the fastest mobile network available for data. You can also configure your phone to access a different set of networks entirely, or to behave in specific ways when roaming.

|                                                                                   |                                                                             |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
|  | Connected to the 4G network (LTE).                                          |
|  | Connected to the EVDO network (EVDO revA).                                  |
|  | Signal strength - more bars that are lit, the stronger the wireless signal. |
|  | Connected to another wireless service provider's network (roaming).         |

The icons in the Status Bar indicate which kind of data network you're connected to and the network signal strength.

When connected to slower networks, you may want to postpone using your phone for data-intensive tasks until you are connected to a faster network again or find a Wi-Fi network to connect to.

### To disable data when roaming

You can prevent your phone from transmitting data over other carriers' mobile networks when you leave an area that is covered by your carrier's networks. This is useful for controlling expenses if your cell plan doesn't include data roaming.

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Tethering & Networks** > **Mobile networks**.
2. Touch **Data roaming** to remove the checkmark from the box. With **Data roaming** unchecked, you can still transmit data with a Wi-Fi connection.

## Connecting to Wi-Fi Networks

Wi-Fi is a wireless networking technology that can provide Internet access at distances of up to 100 meters, depending on the Wi-Fi router and your surroundings.

To use Wi-Fi on your phone, you must connect to a wireless access point. Some access points are open and you can simply connect to them. Others are hidden or implement other security features, so you must configure your phone so it can connect to them.

Turn off Wi-Fi when you're not using it to extend the life of your battery.

The following Status Bar icons indicate your Wi-Fi status.

|                                                                                   |                                                                    |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------|
|  | Connected to a Wi-Fi network (waves indicate connection strength). |
|  | An open Wi-Fi network is available and in range.                   |

When you connect to a Wi-Fi network, the phone obtains a network address and other information it needs from the network, using the DHCP protocol. To view advanced settings, from the Wi-Fi screen, touch and hold the connected network > **Modify network** and check the **Show advanced options**.

### To turn Wi-Fi on and connect to a Wi-Fi network

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Wi-Fi**.
2. If the Wi-Fi button is on the left and the icon is grey-colored, drag the button to the right to turn on Wi-Fi. The button turns blue and your device scans for available Wi-Fi networks.
3. Touch a network and then touch **Connect** to connect to it.
  - If the network is open, you can connect to the network directly by touching the network name.
  - If the network is secured, you will be prompted to enter a password (Ask your network administrator for details).

- When you're connected to a network, you can touch the network name in the Wi-Fi settings screen for details about the speed, security, address, and related settings.

### To receive notifications when open networks are in range

By default, when Wi-Fi is on, you receive notifications in the Status Bar when your phone detects an open Wi-Fi network.

1. Turn on Wi-Fi, if it's not already on.
2. From the Wi-Fi screen, touch the **Menu Key**  > **Advanced** > **Network notification** to checkmark the box. Touch again to remove the checkmark and stop receiving notifications.

### To add a Wi-Fi network

You can add a Wi-Fi network so the phone will remember it, along with any security credentials, and connect to it automatically when it is in range. You can also add a Wi-Fi network manually if it does not broadcast its name (SSID) or if you want to add a Wi-Fi network when you are out of its range. To add a secured network, you need to contact the network's administrator to obtain the password or other required security credentials.

1. Turn on Wi-Fi, if it's not already on.
2. From the Wi-Fi screen, touch **ADD NETWORK**.
3. Enter the **Network SSID** (name) of the network. If the network is secured, touch **Security** and touch the type of security deployed on the network.
4. Enter the required passwords and security credentials.
5. Touch **Save**.

The phone will connect to the wireless network. Any credentials that you entered are saved, so you are connected automatically the next time you come within range of this network.

## To forget a Wi-Fi network

You can make the phone forget about the details of a Wi-Fi network that you added. For example, if you don't want the phone to connect to it automatically or if it's a network that you no longer use.

1. Turn on Wi-Fi, if it's not already on.
2. In the Wi-Fi screen, touch the name of the network that you want to forget.
3. Touch **Forget**.

## USB connection

USB connection is a feature that allows your device to connect to a PC using a USB cable.

- ▶ Allows the phone to be used as Mass storage when a microSD card is present in the device. It also allows you to transfer unprotected content from the phone to the PC and vice versa.

**NOTE** User content, such as photos, videos, and voice recordings, can be stored on a removable microSD card that is inserted in the device.

## To select a USB mode for a connection

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **PC connection** > **USB connection type**.
2. Touch **Media sync (MTP)** or **Camera (PTP)** to connect to the PC.
  - ▶ Touch **Charge only** to use only the charging function and not the USB function.

## Always ask

You can choose to be asked to confirm the USB connection when connecting to a computer.

When **Ask on connection** is checkmarked, the USB selection window is displayed.

## microSD Card

### Unmounting and removing the microSD Card

To safely remove the microSD card from your device, first you need to unmount the microSD card before removing it from the phone.

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Storage** > **Unmount SD card** > **OK**. Now you can safely remove the microSD card.
2. Remove the back cover.
3. Carefully pull the microSD card out of the slot.

**NOTE** You can easily damage the microSD card and its adapter by improper operation. Please be careful when inserting, removing, or handling them.

**NOTE** microSD cards are optional and sold separately.

### Viewing Memory in the microSD Card

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Storage**.
2. Review the available information.
  - The storage capacity page is divided into two sections: Internal Storage and SD Card.

### Formatting the microSD Card

Formatting a microSD card permanently removes all files stored on the card.

1. From the Home screen, touch the **Apps Key**  > **Settings**  > **Storage**.
2. Touch **Unmount SD card** and **OK** to release the microSD card from device use. The icon appears within the Notifications panel to indicate an unmounted microSD card.
3. Once released, touch **Erase SD card** > **Erase SD card** > **Erase everything**.
  - Once completely formatted, the card is automatically re-mounted (reconnected for use by the device).

**NOTE** The formatting procedure erases all the data on the microSD card, after which the files CANNOT be retrieved. To prevent the loss of important data, please check the contents before you format the card.

## Connecting Your Device to Your Computer

Before using your device's mass storage capabilities, you need to prepare your device's data services to synchronize with your desktop or laptop computer. Once you have connected the device to the computer, you can transfer your data to or from the device memory.

### To connect your device to a computer via USB

1. Use the USB cable that came with your phone to connect the phone to a USB port on your computer.
2. Open the Notifications panel and then touch **USB connected**.
3. Touch the connection mode you want to use to connect to the PC.  
Choose from the following options: **Charge only**, **Media sync (MTP)**, **USB tethering**, **LG software** or **Camera (PTP)**.

### Using Media sync (MTP) mode

When you connect the phone and PC using a USB cable and set your device's USB connection mode to Media sync (MTP), you will see one Portable Devices on the PC. You can copy files to/from the removable SD card.

## Sending data from your phone using Bluetooth

### Sending data using Bluetooth

You can use Bluetooth to send data by opening a corresponding application, not from the Bluetooth menu as on most other mobile phones.

- \* **Sending pictures:** Open the **Gallery** application, then open the picture and touch  > **Bluetooth**. Check whether Bluetooth is turned on, then touch **Search for devices**. Choose the device you want to send data to from the list.
- \* **Exporting contacts:** Open the **Contacts** application. Touch the Contact you want to export. Touch the **Menu Key**  > **Share** > **Bluetooth**. Check whether Bluetooth is turned on, then touch **Search for devices**. Choose the device you want to send data to from the list.
- \* **Sending multiple contacts:** Open the **Contacts** application. To select more than one contact, touch the **Menu Key**  > **Share** > **Select all** > **Attach** > **Bluetooth**. Check whether Bluetooth is turned on, then touch **Search for devices**. Choose the device you want to send data to from the list.
- \* **Connecting to FTP (only FTP server is supported on this handset):**  
From the Home screen, touch the **Apps Key**  > **Settings**  > **Bluetooth**. Slide  to the right so you can search for your phone on other devices. Find the FTP service and connect to the FTP server.
  - If you want to search for this phone from other devices, go to from the Home screen, touch the **Apps Key**  > **Bluetooth**. Slide  to the right and touch the checkbox next to the phone name. Your device will be able to be detected by other devices for 120 seconds.

## Placing and Ending Calls

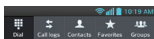
You can place calls using the **Phone** application. Calls can be manually dialed using the **Dial** tab. You can also dial from your phone's memory using the **Call logs**, **Contacts**, **Favorites**, or **Groups** tabs.

### To open the Phone application

- ▶ From the Home screen, touch the **Phone Key**  in the Quick Keys bar.

### To place a call by dialing

1. From the Home screen, touch the **Phone Key**  to open the **Phone** application.



To dial an international number, touch and hold  to enter the plus (+) symbol. Then enter the international prefix for the country; followed by the full phone number.

Touch to erase a digit. Touch and hold to erase the entire number.

Touch to send a message to the number you entered.

Touch  to dial the number that you entered.

2. Touch the keys on the dial pad to manually enter a phone number.
3. Touch the **Call Key**  to dial the number that you entered.
  - You can use other phone features while the call is underway. If you open another application, the Call icon appears in the Status Bar for the duration of the call.
  - Press the **Volume Keys** to adjust the call volume.

- Use the on-screen buttons to enter additional numbers, place the call on hold and take an incoming call, add another call, use the speakerphone, end the call, and other options.

**NOTE** If you opened other applications while on a call, you'll need to return to the Call screen to end the call. You can touch the **Home Key**  then the **Phone Key**  or drag the Notifications panel down and touch the Call icon. You can also touch the Contact's name or number at the top right corner of the Home screen.

## Airplane mode

Some locations may require you to turn off your phone's wireless connections by placing your phone in Airplane mode.

1. Press and hold the **Power/Lock Key** .
2. Touch **Turn on Airplane mode**.

**NOTE** The Wireless & networks menu also has a checkbox to enable or disable Airplane mode.

## Answering or Rejecting Calls

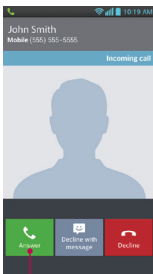
When you receive a phone call, the Incoming call screen opens with the caller ID and any additional information about the caller that you have saved in the Contacts list. All incoming calls are recorded in the Call log.

### To answer a call

- If the screen is unlocked, simply touch the **Answer Key** .
- If the screen is locked, swipe the **Answer** icon  in any direction to answer the call.
  - ▶ If you were already on a call, touch the **Answer Key**  to place the first call placed on hold while you answer the new call.

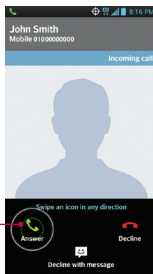
**NOTE** To silence the incoming call ringer, press the Volume Keys.

#### Unlocked Screen



Touch the **Answer Key** to answer the call.

#### Locked Screen

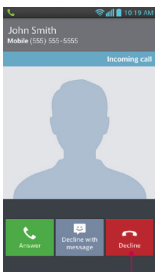


Swipe the **Answer** icon in any direction to answer the call.

## To decline a call and divert it to voicemail

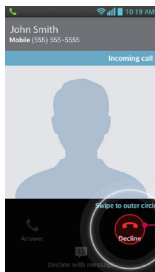
- If the screen is unlocked, simply touch the **Decline Key** .
- If the screen is locked, swipe the **Decline icon**  in any direction to ignore the call.
  - ▶ The caller is sent directly to your voicemail box to leave a message.

### Unlocked Screen



Touch the **Decline Key** to decline the call and send the caller directly to your voicemail box to leave a message.

### Locked Screen



Swipe the **Decline icon** in any direction to decline the call.

**NOTE** To silence the ringer, press the **Volume Keys**.

## To decline a call and send a text message

1. When you receive an incoming call and the screen is unlocked, touch the **Decline with message Key** . If the screen is locked, touch and drag the **Decline with message icon**  in any direction.
2. Touch the text message you want to send in place of answering the call.

**NOTE** This feature can only be used to send a message to another mobile phone. It is not applicable to incoming landline calls.

## Working with the Call Log

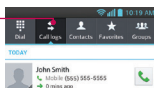
The Call log is a list of all of the calls you've dialed, received, or missed. It offers a convenient way to redial a number, return a call, or add a number to your Contacts.

### To open the Call log

- From the Home screen, touch the **Phone Key**  (in the Quick Keys bar) and then the **Call logs** tab  at the top of the screen.

The most recent calls are located at the top of the list. Scroll down to see older entries.

The Call log tab displays the history of all your calls.



### To dial a number in the Call log

- From the Call log, touch the **Call Key**  at the right of the call entry. You can also touch and hold the entry to open a Context menu with more options to communicate with that contact in other ways.

### To add an entry's number to your Contacts

1. Touch and hold the call entry.
2. Touch **Add to Contacts** in the Context menu.
3. Touch  to add a new contact or choose an existing contact to add the new number to.

## Calling Your Contacts

Instead of manually dialing phone numbers using the dial pad, you can use your Contacts list to dial quickly and easily.

You can also quickly call a contact by using Quick Contact.

If you have contacts on the web, they're synchronized with your phone when you first synchronize to your Google™ Account.

### To call a contact

1. From the Home screen, touch the **Contacts Key**  from the Quick Keys bar.
2. Touch the contact you wish to call.
3. Touch the contact's phone number you want to call.

### To call a favorite contact

1. From the Home screen, touch the **Contacts Key**  from the Quick Keys bar, then touch the **Favorites** tab.
2. Touch the contact you wish to call.
3. Touch the contact's phone number you want to call.

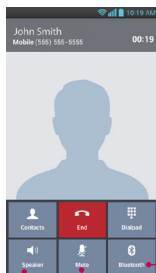
## Voice Dialer

You can use the Voice Dialer application to place a phone call by speaking the name of a contact or a phone number.

### To place a call by speaking

1. From the Home screen, touch the **Apps Key**  > **Voice Dialer** .  
If you have a Bluetooth headset that supports “voice-recognition” or “voice dialing,” you may be able to open Voice Dialer by pressing your headset’s main button or in some other way, and dial by voice using your headset. For details, see the documentation that came with your headset.
2. Say “**Call**” followed by the name of the contact or say “**Dial**” followed by a phone number.

## Options During a Call



Touch to switch between a Bluetooth headset and the phone.

Touch to mute the microphone during a call. The Mute Key lights up to indicate that the microphone is muted.

Touch to turn the speakerphone on or off. The Speaker Key lights up to indicate that the speakerphone is on.

### WARNING!

To avoid damage to your hearing, do not hold the phone against your ear when the speakerphone is turned on.

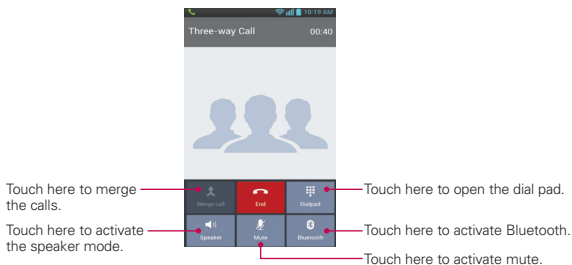
## Managing Multiple Calls

Contact your wireless service provider to learn whether they support conference calls and how many participants you can include.

### To set up a conference call

Contact your wireless service provider to learn whether they support conference calls and how many participants you can include.

1. Place a call to the first participant.
2. When you're connected, touch the **Menu Key**  > **Add call**.
3. Touch the keys on the dialpad to manually enter a phone number, then touch the **Call Key** .
4. After you're connected, touch the **Merge calls Key** . The participant is added to the conference call.



## Listening to Your Voicemail

When you have a new voicemail message, the **Voicemail notification** icon  appears in the Status Bar. If you have not set up your voicemail number, or if you need to change it, you can do that in the Call settings.

### To listen to your Voicemail

- ▶ Open the Notifications panel and touch **New voicemail**.

OR

- ▶ From the Home screen, touch the **Phone Key**  in the Quick Keys bar, then touch and hold .

### To set up your Voicemail

1. From the Home screen, touch the **Phone Key**  in the Quick Keys bar on the Home screen.
2. Touch and hold  to dial your voice mailbox.
3. If you hear a system greeting, touch  to interrupt it, if applicable.
4. Follow the setup tutorial.
5. Select a password.
6. Record a voice signature and greetings.

### To access your voice mail from your wireless device

1. From the Home screen, touch the **Phone Key**  in the Quick Keys bar on the Home screen.
2. Touch and hold  to dial your voice mailbox. If you hear a system greeting or your own greeting, touch the Pound Key  immediately to interrupt the system greeting and follow the prompts.
3. Follow the prompts to enter your password and retrieve your messages.

## Chrome

The **Chrome** feature allows you to access the internet from your device. Access and selections within this feature are dependent upon your service provider. For specific information on Chrome access through your phone, contact your service provider.

**NOTES** • You may incur additional charges for accessing the web and downloading media. For details, contact your service provider.

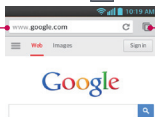
- Available icons may vary depending on your region.

### Browse web pages

1. From the Home screen, touch the Home screen, touch the **Apps Key**  > **Chrome**  or touch the **Chrome** icon on the Home screen. To access a specific web page, touch the URL input field, enter the web address (URL) of the web page, and touch .

#### URL Input Field

Touch here to enter a web address for the web page you wish to access.



#### Tabs

Allows you to view your open tabs.



2. While browsing the web page, the following options are available on the toolbar and by touching the **Menu Key** .
  - ▶ To go to the previous page, touch the **Menu Key**  > **Back** button  in the toolbar or touch the **Back Key** .
  - ▶ To go to a next page in history, touch the **Menu Key**  **Forward** button .
  - ▶ To zoom in or out, double-tap the screen. You can also use the pinch to zoom method. Place your two fingers on the screen and slowly pinch or spread them apart.

- ▶ To open a new window, touch the **New tab** in the toolbar
- ▶ If you want to view pages and not have the browser history or search history save information, you can open an incognito tab. Touch the **Menu Key**  > **New Incognito tab**.
- ▶ To view the list of bookmarks, touch touch the **Menu Key**  > . You can also edit, or delete a bookmark from this menu.
- ▶ To open tabs, access bookmarks and omnibox data from your computer, touch the **Menu Key**  > **Other devices**. Sign in if you have not done so.
- ▶ To search for text on the web page, touch the **Menu Key**  > **Find in page...**
- ▶ To customize the Chrome settings, touch the the **Menu Key**  > **Settings**.

### Bookmark your favorite web pages

If you know the web address of the web page, you can manually add a bookmark. To add a bookmark:

1. Touch the **Menu Key**  > 
2. You can edit the label and address (URL). You can also select the account and folder to add it to.
3. Touch **Save**.

## Maps

### Maps Menu

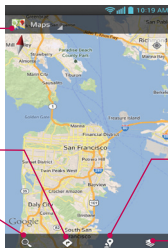
Touch here to access other Maps menus.

### Directions

Touch to get directions to a destination.

### Search

Touch to search for locations.



### Local

Touch to find types of places near your location.

### Layers

Touch to add layers to the map.

## To search for a location

1. From the Home Screen, touch the **Apps Key**  > **Maps** .
2. Touch the search icon  at the bottom of the screen.
3. In the search box, enter the place you're looking for. You can enter an address, a city, or a type of business or establishment. For example, "theater in New York".
4. Touch the **Search Key** on the keyboard.

Red markers indicate search matches on the map.

You can touch a marker to open a balloon that contains a label. Touch the balloon to open a screen with more information about the location, as well as options for obtaining directions.

## To get directions

1. From the Home screen, touch the **Apps Key**  > **Maps** .
2. Touch **Directions** .
3. Enter a starting point in the first box and your destination in the second box.

The starting point and destination can be entered manually using the keyboard or you can select places using their drop-down menus .

- ▶ The starting point drop-down menu includes **My current location**, **Contacts**, **Point on map**, and **My Places**.
- ▶ The destination drop-down menu includes **Contacts**, **Point on map**, and **My Places**.

**NOTE** To reverse the directions, touch the **Menu Key**  > **Reverse Start & End**.

**NOTE** When you search for a location in the **Maps** application, your current location is automatically entered as the starting point and a dialog box displays your recent searches allowing you to touch one to select it as the destination.

4. Touch the **Car** icon  for driving directions, the **Transit** icon  for transit directions, the **Bicycle** icon  for biking directions, or the **Walking** icon  for walking directions.
5. Touch **GET DIRECTIONS** at the bottom of the screen.
6. Your route is displayed on a map.
  - ▶ Touch a white circle marker on the map to see direction change indicators.
  - ▶ Touch  to display each direction instruction sequentially in a bubble at each juncture. You can touch  to step backward through the direction instructions.
  - ▶ To view the directions in text format, touch **DIRECTIONS LIST** at the bottom left corner of the screen. From the directions list screen, touch **MAP VIEW** to return to the map view.
  - ▶ Touch the **Back Key**  to return to map view.

### Switching between common features

The Maps application has icons for easy access to many common features used when searching for the places you want to go.

- ▶ Touch the **Maps menu**  at the top left corner of the screen to access Map, Local, Navigation and more.
- ▶ Touch the **Layers** icon  to access Traffic, Satellite, Terrain, Transit Lines, My Maps, Wikipedia and more.

- ▶ Touch the **Local** icon  to search for places near your location or your destination.
- ▶ Touch the **Directions** icon  icon to get directions.

### Maps settings

Access the **Maps** application, then touch the **Menu Key**  > **Settings**.

## Checking the Weather

The **Weather** application provides weather forecasts. You can place a Weather widget on your Home screen for a summary of your local weather. Access the Weather application for more detailed weather information.

### To get details about the weather

From the Home screen, touch the **Apps Key**  > **Weather** .

- ▶ Swipe right or left to scroll through the weather information for each of the cities in your list.
- ▶ Touch the **Refresh** icon  in the lower right corner of the Weather application screen to update the current weather of the city displayed on the weather application screen.

### To update or add city

The City list screen allows you to manage a list of cities that you want to monitor. Touch the **Add** icon  to add a new city or update your current location.

- ▶ Touch **Current location** at the top of the screen to update your current location.

Type in the city, state or ZIP code to search the name.



Enter city, state or ZIP code



## Changing Weather Settings

You can configure a number of settings for the **Weather** application.

The location and related settings also affect the display of the Weather widget application.

- To open the Weather settings screen, touch the **Menu Key**  > **Settings**.

## Contacts

The **Contacts** application allows you to store names, phone numbers and other information in your phone's memory.

### Using Your Contacts

Use the **Contacts** application to add, view, and communicate with your friends and acquaintances.

#### To open your Contacts application

- ▶ From the Home screen, touch the **Apps Key**  > **Contacts** .

OR

Touch **Contacts**  in the Quick Keys bar.

All of your contacts are displayed alphabetically in a list. If you have a new phone and haven't added any contacts yet, the **Contacts** application will display hints on how to start adding contacts to your phone.

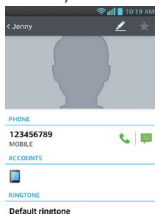
#### To open a list of your favorite contacts

- ▶ Open your **Contacts** application and touch the **Favorites** tab at the top of the screen.

Favorites lists the contacts you've added to the list.

#### To view details about a contact

1. Open your **Contacts** application.
2. Touch the contact whose details you want to view.



3. The Contact's information will be displayed. The following options are available.

- ▶ The **Dial icon**  places a call to the number.
- ▶ The **Message icon**  starts a message.
- ▶ Touch the **Menu Key**  for the following menu options: **Delete**, **Share**, **Join**, **Export**, and **Add to Home screen**.

## Adding Contacts

You can add contacts on your phone and synchronize them with the contacts in your Google™ Account, Microsoft Exchange account, or other accounts that support syncing contacts.

Since your contacts can come from a variety of sources, the **Contacts** application attempts to join new information with existing similar contact entries, to create a single entry. You can also manage that process manually by joining or splitting entries.

### To add a new contact

1. Open the **Contacts** application.
2. Touch the **New contact icon**  to the right of the Search field.
3. If you have more than one account with contacts, touch  at the top of the screen and choose the account to which you want to add the contact.
4. Enter the contact's name.
5. Touch a category of contact information, such as phone number or email address, to enter that kind of information about your contact.
6. Touch a category's **Add another field icon**  to add more than one entry for that category. For example, in the phone number category, enter a work number and add a home number. Touch the label field to the right of the entered information to open a drop-down menu of preset labels. For example, **Work** or **Home** for a phone number.

7. Touch the **Picture frame** icon  to select a picture to display next to the name in your list of contacts and in other applications.
8. When you're finished, touch the **Save** button.

## Importing, Exporting, and Sharing Contacts

If you have contacts stored in vCard format on a microSD card you can import them into your Contacts application on your phone. You can also export contacts in vCard format onto a microSD card.

Export to back them up to a computer or other device or so you can send a contact via email.

### To import contacts from your microSD card

You can copy contacts, in vCard format, onto your microSD card then import them into your phone.

1. Insert the memory card (that contains the vCard files) into your phone.
2. Open the **Contacts** application.
3. Touch the **Menu Key**  > **Import/Export**.
4. Touch **Import from SD card**.
5. If you have more than one account on your phone, touch the account into which you want to import the contacts.
6. Touch the contacts you want to import to the microSD card. Then touch **Import**.

### To export contacts to your microSD card

You can export all of the contacts on your phone to your microSD card, as vCard files. You can then copy this file to a computer or another device that is compatible with this format, such as an address book application.

1. Open the **Contacts** application.
2. Touch the **Menu Key**  > **Import/Export**.
3. Touch **Export to SD card**.

4. Touch the contacts you wish to export to the SD card. To export all contacts, touch **Select all** in the top left corner of the screen.
5. Touch **Export**, enter a file name, then touch **OK**.

### To share a contact

You can share a contact with someone by sending it to them as a vCard file.

1. Open the **Contacts** application.
2. Touch the contact you want to share to view the contact details.
3. Touch the **Menu Key**  > **Share**.
4. Choose the method for sending.
5. Enter the necessary information and share it.

### Adding a Contact to Your Favorites

The **Favorites** section contains a short list of the contacts you communicate with most often.

#### To add a contact to your favorites list

1. Open the **Contacts** application.
2. Touch a contact to view its details.
3. Touch the star to the right of the contact's name.  
When the contact is added to your favorites list, the star will be gold-colored.

#### To remove a contact from your favorites list

1. Open the **Contacts** application and touch the **Favorites** tab.
2. Touch a contact entry to view its details.
3. Touch the gold star to the right of the contact's name.  
The grey-colored star will indicate that the contact was removed from your Favorites list.

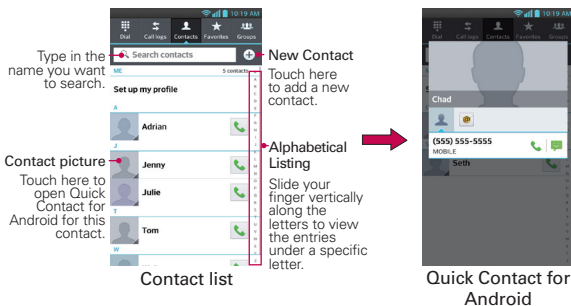
## Communicating with Your Contacts

From the **Contacts**, **Groups**, or **Favorites** tab, you can quickly call or send a text (SMS) or multimedia message (MMS) to a contact's default phone number. You can also open a list of all the ways you can communicate with that contact.

This section describes ways to initiate communication when viewing your list of contacts. The **Contacts** application shares your contacts with many other applications, such as Gmail™ and Messaging.

### To connect by using Quick Contact for Android™

1. Touch a contact's picture to open Quick Contact for Android.



2. Touch the icon corresponding to the type of communication you want to start.

The communication icons displayed depend on the types of information you saved in the contact information.

## To communicate with a contact

1. Open the **Contacts** application.
2. Touch the contact with whom you want to communicate.
3. In the contact's details screen, touch the way to start communicating with the contact.
  - ▶ The **Dial icon**  places a call to the number.
  - ▶ The **Message icon**  starts a message.

**NOTE** Anytime you see the **Dial icon**  next to a number, such as in your Favorites or Call log, just touch it to call that number.

## To call a contact's default number

1. Open the **Contacts** application.
2. Touch **Dial icon**  next to the contact entry you wish to call.

## Selecting Which Contacts are Displayed

You can hide contacts that don't have phone numbers. You can also configure which groups of contacts you want to display in the Contacts list.

## To change which groups are displayed

1. Open the **Contacts** application.
2. Touch the **Menu Key**  > **Settings** > **Display options**.
3. Touch an account to open its list of available groups.
4. Touch **All contacts** to display contacts from all of your sync'd accounts, touch a single account, or touch **Customize** to select more than one (but not all) account types to display their contacts.

## Joining Contacts

When you add an account or add contacts in other ways, such as by exchanging emails, the **Contacts** application attempts to avoid duplication by joining contact information automatically. You can also join contacts manually.

### To join contacts

1. Open the **Contacts** application.
2. Touch the contact entry to which you want to add information. The contact name for this entry will remain unchanged after you join with another contact.
3. Touch the **Menu Key**  > **Join**.
4. Touch the contact whose information you want to join with the first contact. The information from the two contacts will be merged and displayed under the name from the first contact.

## Separating Contact Information

Each contact entry on your phone may contain 'joined' information from a variety of sources.

If contact information from different sources was joined in error, you can separate the information back into individual contact entries on your phone.

### To separate contact information

1. Open the **Contacts** application.
2. Touch the contact entry whose information you want to separate.
3. Touch the **Menu Key**  > **Separate**.
4. Touch **Yes** to confirm you want to separate the entries. The contact information will be separated into individual contact entries in the **Contacts** list.

## Email

You can use the **Email** application to read email from providers other than Gmail. The Email application supports the following account types: POP3, IMAP and Microsoft Exchange.

### To open the Email application

From the Home screen, tap the **Apps Key**  > **Email** .

The first time you open the **Email** application, a setup wizard opens to help you add an email account.

### Composing and Sending Email

1. In the **Email** application, touch **Compose** .
2. Enter an address for the message's intended recipient. As you enter text, matching addresses will be offered from your contacts. Separate multiple addresses with commas.
3. Touch the **Menu Key**  > **Add Cc/Bcc** if required.
4. Touch the text field and enter the text of the message.
5. Touch **Attach**  to attach the file you want to send with your message.
6. Touch **Send**  to send the message.

If you are not connected to a network, for example if you're working in airplane mode, the messages you send are stored in your **Outbox** folder until you're connected to a network.

**NOTE** The messages sent using an Exchange account will not be stored on the phone; they will be stored on the Exchange server itself. If you want to see your sent messages in the **Sent** folder, you may need to open the **Sent** folder and select **Refresh** from the options menu.

### Working with Account Folders

Each account has Inbox, Drafts, Outbox, Sent, Trash folders. Depending on the features your account service provider supports, you may have additional folders.

## Adding and Editing Email Accounts

### To add an email account

1. From the Home screen, touch the **Apps Key**  > **Email** .
2. Select the desired email provider.

If an email account is already set up, the wizard is not activated automatically. In this case, tap the **Menu Key**  > **Settings** > **New account** .

### To change or delete account settings

1. Tap the **Menu Key**  > **Settings**.
2. Touch **General settings** to change settings that affect all accounts or touch an individual account to change the settings just for that account.

## Gmail

### Opening Gmail and Your Inbox

When you open the **Gmail** application, the most recent conversations are displayed in your Inbox.

#### To open the Gmail application

From the Home screen, touch the **Apps Key**  > **Gmail** .

All of your conversations are displayed in your Inbox unless you delete, archive, or filter them.

The current Google Account is displayed at the top of the Inbox. If you have more than one account, you can switch accounts to view the messages in each Inbox. Simply touch  to the right of the current account to select another account to display.

Conversations with new messages are displayed with bold subject lines. To read a message in a conversation, touch its subject line text.

### Adding another Google Account

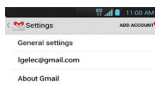
1. From your Gmail Inbox, touch the **Menu Key**  > **Settings**.
2. Touch **ADD ACCOUNT** at the top right corner of the screen.
3. Touch the **Existing** button or the **New** button, then enter the necessary information.

#### To switch accounts

Gmail displays conversations and messages from one Google Account at a time. If you have set up more than one Google Account on your device, you can easily switch between them.

- From your Gmail Inbox, touch  on the header, then touch the account that contains the email you want to read.

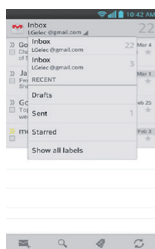
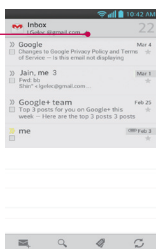
**NOTE** The number to the right of the selected Google Account indicates the number of unread messages you have in that account.



Touch here to add an account.

### Accounts Icon

Touch here to switch accounts or folders.



### Gmail Inbox

## Navigating in the Gmail application

If you are viewing a message or another label, touch the **Back Key**  until you return to your **Inbox** or touch  > **Inbox**. You can also touch  from another label and select **Inbox**.

The icons at the bottom of the screen allow you to navigate within the Gmail application.

While viewing your Inbox, swipe the screen up and down to scroll through the list and use the following icons:

- ▶ **Compose**  Touch this icon to start a new Gmail message.
- ▶ **Search**  Touch this icon to search within the Gmail application.
- ▶ **Labels**  Touch this icon to view your messages by Gmail label.
- ▶ **Sync**  Touch this icon to sync your Google Account(s) on your device.

While viewing a message, swipe the screen left and right to scroll through all of your messages and use the following icons:

- ▶ **Archive**  Touch this icon to send the message to your archive folder.
- ▶ **Delete**  Touch this icon to delete the message.
- ▶ **Labels**  Touch this icon to set labels for the message to help organize your messages.
- ▶ **Unread**  Touch this icon to return the message to an unread state.

## Messaging

### To open Messaging

- ▶ From the Home screen, touch the **Messaging Key**  in the Quick Keys bar.



Touch here to create a new message.

- ▶ Touch **New message**  to start a new text or multimedia message.
- ▶ Touch an existing message thread to open it.

### To delete a message thread from the Messaging window

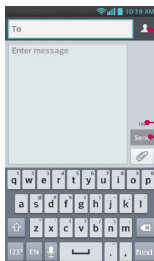
1. Touch and hold the message thread.
2. Touch **Delete** in the Context menu that opens.
3. Touch **Yes** to confirm you want to delete the message thread.

### To send a text message

1. On the Messaging screen, touch **New message** .
2. Enter a mobile phone number in the **To** field.

As you enter the mobile phone number, matching contacts appear. You can touch a suggested recipient or continue entering the phone number.

3. Touch the text field to start entering your message.



Touch here to add contacts from the contact list.

Displays the number of characters entered and amount remaining.

Touch here to attach the files.

A counter is displayed in the top right corner of the text field to tell you how many characters are left and the number of pages.

If you touch the **Back Key**  while composing a message, it's saved as a draft in your **Messaging** application. Touch the message to resume composing it.

4. Touch **Send** to send the message.

Your message is displayed and responses appear in the same window, creating a message thread with that contact.

### To create and send a multimedia message

1. On the Messaging screen, touch **New message**  at the top right corner of the screen.
2. Enter a mobile phone number, email address, or Contact name in the **To** field. As you type, matching contacts appear. You can touch a suggested contact or continue typing.
3. Touch the text field to start entering your message.
4. Touch the **Menu Key**  > **Add subject** to add a message subject.
5. Touch the **Attachment** icon  to open a dialog box where you can choose the type of media file to attach to the message.
  - ▶ If you touch **Image**, you're prompted to select a picture from your Gallery.
  - ▶ If you touch **Take photo**, the **Camera** application opens so you can take a picture and attach it.
  - ▶ If you touch **Video**, you're prompted to select a video from your Gallery.
  - ▶ If you touch **Record video**, the **Camcorder** application opens so you can record a video and attach it.
  - ▶ If you touch **Audio**, you're prompted to select an audio file from your microSD card.
  - ▶ If you touch **Record voice**, the voice recording function opens and allows you to record an audio message and attach it.

- ▶ If you touch **Contact**, you're prompted to select the contact(s) you want to send as vCard file(s).
- ▶ If you touch **Slide**, you can assemble photos, audios, videos, texts into a slideshow (up to 10 slides) to attach to the message.

6. Touch the **Send MMS** button to send the message.

### To respond to messages you receive

If you're working in a message window, messages that you receive from that contact are displayed. Otherwise, you receive a new message notification and a new message icon  appears in the Status Bar. When you touch the new message notification, the Message screen opens where you can reply to the message.

If Auto-retrieve is uncheckmarked, you must touch **Download** to view the message.

If the message contains a media file, touch the **Play** button to view, watch, or listen to it. Touch and hold the media file to open a Context menu with additional options.

### To view details about a message

1. Touch and hold a message in a message window.
2. Touch **View message details** in the menu that opens.

## Changing Messaging Settings

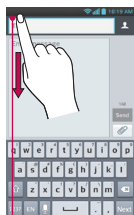
You can change a number of Messaging settings.

- ▶ To change the Messaging settings, open the **Messaging** application, touch the **Menu Key**  > **Settings**.

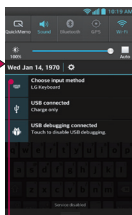
### How to select the type of keyboard you want

1. While entering text, open the Notifications panel and touch **Choose input method**.
2. Choose between **Google voice typing** and **LG Keyboard**.

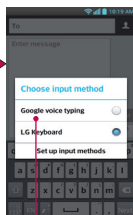
You will now be able to enter text using the new keyboard.



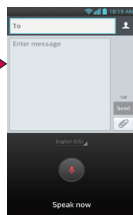
Touch and drag down.



Touch **Choose input method**.



Choose the type of keyboard you want.

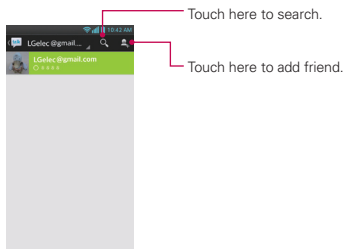


## Talk

### To open Google Talk and sign in

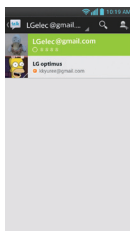
- ▶ From the Home screen, touch the **Apps Key**  > **Talk** .

When you first open Google Talk, your Accounts list will be displayed. This list includes all of the Google Accounts you've added. Touch an account to see the Friends list.



### To sign out of Google Talk

You can sign out of Google Talk. For example, if you want to limit Google Talk conversations to your computer. Also, signing out can extend your battery life.



- ▶ From your Friends list, touch the **Menu Key**  > **Sign out**.

You will no longer receive chat notifications or see others' Google Talk status in other applications, such as Gmail™.

## Chatting with Friends

### To chat with a friend

1. From the Home screen, touch the **Apps Key**  > **Talk** .

If you're already chatting with someone, you can touch  at the top left corner of the screen.

2. Touch the friend you want to chat with.
3. Enter your message then touch **Send** .

### Friends list options

From the Friends list, touch the **Menu Key**  to access the following settings: **Display options**, **End all chats**, **Sign out**, **Settings**, **Help** and **Send feedback**.

### To accept an invitation to chat

When a friend sends you a Google Talk message, you will receive a notification. The friend's name in the Friends list turns white and displays the message.

- ▶ Touch the name of the person in your Friends list.

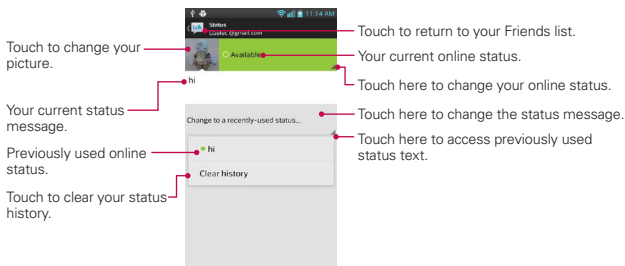
**OR**

- ▶ Open the Notifications panel then touch the chat notification.  
A chat window will open where you can exchange messages with your friend.

### Chat options

While you chat, touch the **Menu Key**  to access the following settings: **End chat**, **Go off the record**, **Friend info**, **Add to chat**, **Clear chat history**, **Settings**, **Help** and **Send feedback**.

## Changing and Monitoring Online Status



## Status Icons

Icons in Google Talk, Gmail, and other applications indicate the Google Talk status for you and your friends.

|                                                                                     |                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|    | Available: Signed into Google Talk and available to chat.           |
|    | Busy: Signed into Google Talk but too busy to chat.                 |
|                                                                                     | Signed out of Google Talk.                                          |
|    | Invisible: Signed into Google Talk but appear signed out to others. |
|    | Video Chat: Video chat is available.                                |
|  | Voice Chat: Voice chat is available.                                |

## Changing Google Talk Settings

To change the Google Talk settings, touch the **Menu Key**  from the friends list and touch **Settings**. Select the desired account and configure the settings.

## Voice Dialer

### Call a Contact by Voice Dialing

You can call numbers directly by saying the contact's name or number.

1. From the Home screen, touch the **Apps Key**  > **Voice Dialer** .
2. Say "Call" or "Dial" then a name or a phone number.  
Or you can say "Redial" to redial the last number dialed.
3. If a list of results is displayed, touch the one you want to use.

### Open an Application using Voice Dialer

1. From the Home screen, touch the **Apps Key**  > **Voice Dialer** .
2. Say "Open" and then an application name.
3. If a list of results is displayed, touch the one you want to use.  
The device opens the corresponding application.

## Camera

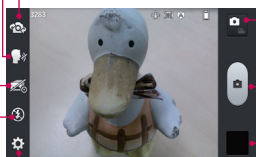
To open the Camera application, from the Home screen touch the **Apps Key**  > **Camera** .

### Getting to know the viewfinder

**Time catch shot** – Time catch shot allows you to capture the missing moments by taking five sequential pictures at once before the shutter key is touched.

**Cheese shutter** – Allows you to say voice commands to take a photo.

**Swap Camera** – Allows you to swap between the rear camera lens and the front camera lens.



**Mode Switch** – Touch this icon to switch between Camera mode and Video mode.

**Capture** – Touch to take a photo.

**Gallery** – Accesses your saved photos from within Camera mode. Simply touch this icon and your Gallery will appear on the screen.

**Settings** – Opens the Camera settings menu.

**Flash** – Allows you to turn the flash on and off.

**NOTE** Default resolution is 5M(2560x1920).

### Photo options

You can make adjustments to optimize your shot. The following options are available:

- **Edit quick menu** : Allows you to change the quick menu functions that appear on the viewfinder.
- **Zoom** : Allows you to zoom in or out on the subject.
- **Brightness** : Defines and controls of the amount of light entering the lens. Slide the brightness indicator along the bar toward “-” for a lower brightness image or toward “+” for a higher brightness image.
- **Focus** : Allows you to adjust the focus mode to **Auto** or **Face tracking**.
- **Shot mode** : Allows you to set the shot mode to **Normal**, **HDR**, **Panorama**, and **Continuous shot**.
- **Image size** : Allows you to adjust the image size to **5M (2560x1920)**, **3M (2048x1536)**, **W3M (2304x1296)**, **1M (1280x960)**, **W1M (1536x864)**.

- **Scene mode** : Adjust for better image capture in different environments. Choose from **Normal**, **Portrait**, **Landscape**, **Sports**, **Sunset**, **Night**, and **Smart shutter**.
- **ISO** : Controls the camera's sensitivity to light. Choose from **Auto**, **400**, **200**, **100**.
- **White balance** : Improves color qualities under different lighting conditions. Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.
- **Color effect** : Applies artistic effects to pictures. Choose from **None**, **Mono**, **Sepia**, or **Negative**.
- **Timer** : Allows you to set a timer to delay taking the picture. Choose from **3 sec**, **5 sec**, or **10 sec**.
- **Geotagging** : Allows you to select if you want to save the location information for the pictures you take. Choose from **Off** or **On**.
- **Shutter sound** : Allows you to set the shutter sound. Choose from **Tone 1**, **Tone 2**, **Tone 3**, **Tone 4**, or **Off**.
- **Auto review** : Allows you to set if you want to automatically view the picture after you take it. Choose from **Off**, **On**, **2 sec**, or **5 sec**.
- **Storage** : Sets where your pictures are saved. Choose from **SD card** or **Internal storage**.
- **Reset** : Resets all of the settings back to the default values.

## Using the focus mode

You can select from the following focus options:

**Auto** Sets the camera to focus automatically.

**Face tracking** Sets the camera to detect and focus on human faces automatically.

## Taking a quick photo

1. Open the **Camera** application.
2. Holding the phone horizontally, point the lens toward the subject you want to photograph.

3. Touch the subject on the screen and a focus box will appear in the viewfinder.
4. When the focus box turns green, the camera has focused on your subject.
5. Touch the **Capture** button  to take the picture.

**NOTE** You can also press the Volume Keys to take a picture.

## Once you've taken the photo

If Auto review is set to On, your captured photo will appear on the screen until you touch an option or icon to proceed.

The following options are available after taking a photo:

- Share** Touch to share your photo using **Bluetooth, Email, FileShare, Gmail, Google+, Memo, Messaging, Picasa**, or any other application you've downloaded that supports this feature.
- Set as** Touch to use the image as a **Contact photo, Home screen wallpaper, or Lock screen wallpaper**.



Touch to delete the image, then touch **Yes** to confirm.

Touch to take another photo immediately. Your current photo will be saved to your Gallery.

Touch to view the Gallery of your saved photos. The thumbnail shows the recently taken photo.

## Viewing your saved photos

You can access your saved photos from Camera mode. Just touch the image thumbnail at the bottom of the Camera screen.

**TIP** Slide or flick your finger left or right to view other photos or videos.

While viewing a photo, touch the screen to access the following options:

**SmartShare**  Touch to share the photo using SmartShare (turn on Wi-Fi if it's not already on).

**Camera**  Touch to take a photo, or record a video.

**Share**  Touch to open a dialog box to select which application to use to share the photo.

**Delete**  Touch to delete the photo, then touch the **Yes** button.

**Menu Key**  Touch to open an Options menu that includes the following additional options.

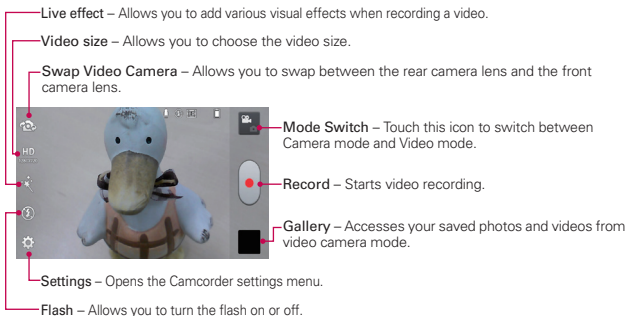
- ▶ **Set image as** Touch to set the photo as the icon identifying a contact or set it as your Contact photo, Lock screen wallpaper or Home screen wallpaper.
- ▶ **Move** Touch to move the picture to another album or folder.
- ▶ **Copy** Touch to copy the image to another album.
- ▶ **Rename** Touch to rename the photo for easy identification.
- ▶ **Rotate left** Touch to rotate the photo counter-clockwise.
- ▶ **Rotate right** Touch to rotate the photo clockwise.
- ▶ **Crop** Touch to open a cropping box tool that allows you to manually crop the photo. Use your finger to move or resize the cropping box to encompass only the part of the photo you want to see, then touch the **OK** button.
- ▶ **Edit** Touch to edit the photo.
- ▶ **Slideshow** Touch to see your photos played in a slideshow.
- ▶ **Details** Touch to display information about the photo (e.g., file type, file size, etc.).

**TIP** You can use the pinch-to-zoom gesture to easily zoom in and out of the displayed picture.

## Video Camera

To open the Video Camera, from the Home screen touch the **Apps Key**  > **Camera** . Then touch .

### Getting to know the viewfinder



### Video options

You can make adjustments to optimize your video. The following options are available when you touch **Settings**  on the viewfinder screen:

- ▶ **Edit quick menu** : Allows you to change the quick menu functions that appear on the viewfinder.
- ▶ **Zoom** : Zoom in or zoom out. Set the zoom before starting a video. You cannot change the zoom setting during recording.
- ▶ **Brightness** : Defines and controls the amount of sunlight entering the lens. Slide the brightness indicator along the bar toward “-” for a lower brightness video or toward “+” for a higher brightness video.
- ▶ **White balance** : Improves color qualities under different lighting conditions. Choose from **Auto**, **Incandescent**, **Sunny**, **Florescent**, and **Cloudy**.
- ▶ **Color effect** : Applies artistic effects to videos. Choose from **None**,

### Mono, Sepia, and Negative.

- ▶ **Geotagging** : Allows you to add location information to the video. This is ideal for geotagging purposes. Choose from **Off** or **On**.
- ▶ **Audio recording** : Allows you to select if you want to record audio for the video. Choose from **On** or **Off**.
- ▶ **Auto review** : Allows you to briefly view the video after taking it. Choose from **Off**, **On**, **2 sec**, or **5 sec**.
- ▶ **Storage** : Allows you to select where to store your videos. Choose from **SD card** or **Internal storage**.
- ▶ **Reset** : Resets all of the settings back to the default values.

## Recording a quick video

1. Open the **Camcorder** application.
2. The Video camera's viewfinder will appear on the screen.
3. Holding the phone horizontally, point the lens toward the subject of the video.
4. Touch **Record**  once to start recording.
5. The video length timer begins counting.
6. Touch **Stop**  on the screen to stop recording.

**NOTE** You can also press the Volume Keys to start and stop recording.

**TIP!**  Touch to capture image during recording a video.

## After recording a video

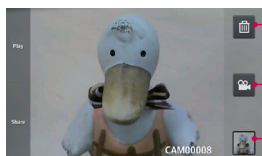
If Auto review is set to On, a still image representing your video will appear on the screen until you touch an option or icon to proceed.

The following options are available:

**Play** Touch to play the video you just recorded.

**Share** Touch to share your video using **Bluetooth**, **Email**, **FileShare**, **Gmail**, **Google+**, **Messaging**, **Picasa**, **YouTube**, or any other compatible applications you have downloaded.

**NOTE** Additional charges may apply when multimedia messages are downloaded while roaming.



Touch to delete the video you just made, and confirm by touching **Yes**. The viewfinder will reappear.

Touch to record another video right away.

Touch to view the Gallery of your saved videos. The thumbnail shows the recently recorded video.

## Watching your saved videos

1. In the viewfinder, touch the video thumbnail at the bottom of the Camera application.
2. Your Gallery will appear on the screen.
3. Touch the video to play it automatically.

## Your Photos and Videos

### Adjusting the volume when viewing a video

To adjust the volume of a video while it is playing, use the **Volume Keys** on the left side of the phone.

## Gallery

### Opening Gallery and Viewing Your Albums

Open the **Gallery** application to view albums of your pictures and videos.

#### To open Gallery and view your albums

- ▶ From the Home screen, touch the **Apps Key**  > **Gallery** .

#### OR

- ▶ Open Gallery from the **Camera** application by touching the thumbnail image at the bottom right corner of the screen.

The **Gallery** application presents the pictures and videos saved in your phone or memory card, including those you've taken with the **Camera** application and those you downloaded from the web or other locations.

- ▶ Touch an album to open it and view its contents.
- ▶ Touch a picture or video in an album to view it.
- ▶ Return to the main Gallery screen at any time by touching  at the top left of the screen.
- ▶ Touch the **Menu Key**  to access **New Album**, **Delete**, **Hide/Show album**, and **Settings**.

#### To share an album

You can share the entire contents of one or more albums or individual images or videos from an album.

1. From the Home screen, touch the **Apps Key**  > **Gallery** .
2. Touch and hold the desired album and then touch **Share**.
3. Select the method for sharing the album.

## Working with photos

Use the **Gallery** application to view pictures that you've taken with the **Camera** application, downloaded, copied onto your microSD card or that are stored in Picasa web albums.

### To view and browse photos

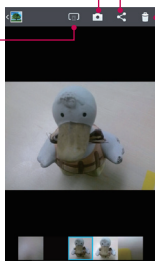
1. From the Home screen, touch the **Apps Key**  > **Gallery** .
2. Open an album and touch a picture.
3. Touch the **Menu Key**  to access **Set image as, Move, Copy, Rename, Rotate left, Rotate right, Crop, Edit, Slideshow** or **Details**.

Touch here to go to camera mode.

Touch here to share via SmartShare.

Touch here to share.

Touch here to delete.

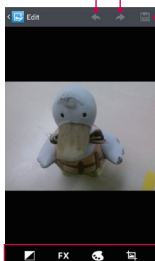


### To edit pictures

Touch here to go to undo the last action.

Touch here to redo the previously undone action.

Touch here to save.



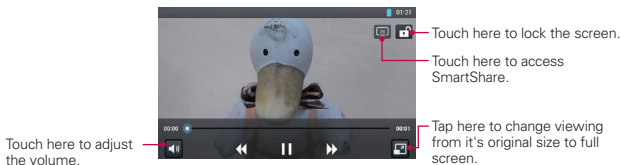
Touch here to access the editing tools.

## Working with Videos

Use the **Gallery** application to play videos that you've taken with the **Camera** application and to share them with friends.

### To play videos

- ▶ Open a Gallery album, then touch a video.  
The video plays in the orientation you recorded it in.



- ▶ Touch the screen while the video is playing to view the playback controls.

### To share a video

You can share your videos in a variety of ways, including sending it by email or multimedia message (MMS), or via SmartShare or a Bluetooth device. You even have the option to share your videos publicly by uploading it to the YouTube™ website.

1. From the Home screen, touch the **Apps Key**  > **Gallery** , then touch an album.
2. While viewing an album, touch the **Share** .
3. Select the desired videos and touch **Share**.
4. In the dialog box that opens, touch the application you would like to use to share the selected videos.
5. Enter the necessary information and share it.

## To delete a video

1. From the Home screen, touch the **Apps Key**  > **Gallery** , then touch an album.
2. While viewing an album, touch the **Delete** icon  at the top right corner of the screen.
3. Touch to checkmark the video(s) you want to delete.
4. Touch **Delete** at the bottom of the screen.
5. Touch **Yes**.

**NOTE** Touch and hold a video file to delete a single video. Touch **Delete**, then touch **Yes** to confirm.

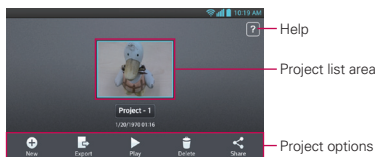
## Video Editor

You can edit the photos or videos stored on the phone.

From the Home screen, tap the **Apps Key**  > **Video Editor** .

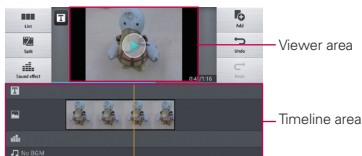
**NOTE** The Video Editor app supports only photos or videos which were recorded using this device.

## Project list screen



- ▶ **New** : Tap to create a new project.
- ▶ **Export** : Tap to export the finished project to play in other applications.
- ▶ **Play** : Tap to play your video project.
- ▶ **Delete** : Tap to delete the video project.
- ▶ **Share** : Tap to share the video project with other applications, such as YouTube.

## Project edit screen

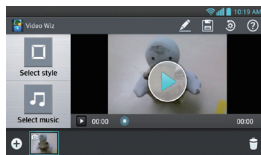


- ▶ **List** : Displays the project list screen. The current project is saved automatically.
- ▶ **Split** : Splits the selected video clip into two portions.
- ▶ **Sound effect** : Adds a sound effect.
- ▶ **Add** : Adds additional video, images, or audio clips.
- ▶ **Undo** : Undo the last action.
- ▶ **Redo** : Redo the previously removed action.
- ▶ **Add text** : Adds text to a video or image clip.

## Video Wiz

You can make your own movie using your images, video and music.

1. From the Home screen, tap the **Apps Key**  > **Video Wiz** .



2. Tap the **Add icon**  to add images and/or video to your movie.
3. Tap the images and/or videos you want to make a video with, then tap the **Done icon** .
  - ▶ To remove images or videos, tap the **Delete icon**  then tap the **Remove icon**  on each image to remove, then tap the **Done icon** .

- ▶ To rearrange the files, touch and hold an image/video, then drag and drop it to the desired position.
- 4. Tap **Select style** to select the desired movie style.
  - ▶ Scroll through and select the style you want. As you tap the desired style, a preview is displayed.
  - ▶ Tap **OK**.
- 5. Tap **Select music** to set the background music.
  - ▶ Select **Default for this style** or **Music track**.
- 6. Tap the **Play** icon  to play your movie.
- 7. Tap the **Edit** icon  to edit the video clip using **Text**, **Sticker**, or **Magic spot**.
  - ▶ After editing the video, tap the **Done** icon .
- 8. Tap the **Save** icon  to save the video.
- 9. Tap the **Revert** icon  to remove all of the edits previously applied to the images.

**NOTE** Tap the **Help** icon  if you want to see Help information about Video Wiz.

## Play Store

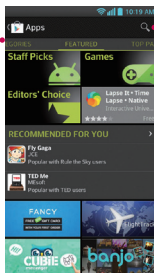
Play Store allows you to browse and search for free and paid applications.

### To open the Play Store application

- ▶ From the Home screen, touch the **Apps Key**  > **Play Store**  or touch the **Play Store** icon  on the Home screen.

When you open **Play Store** application for the first time, you must read and accept the terms of service to continue.

Scroll to the left and right to view and explore sub-categories.



Touch here to search for the apps.

### To get help with Play Store

Play Store Help web pages are available from all Play Store screens.

- ▶ Touch the **Menu Key**  > **Help**.

The **Chrome** application opens to the Play Store Help page, with links to many help topics.

### To open a screen with details about an application

- ▶ At any time while browsing Play Store, touch an application to open its details screen.

The Application details screens include a description, ratings, comments, and related information about the application. From this screen, you can download, install, uninstall, and rate the application, and more.

## To return to the Play Store home screen

You can return directly to the Play Store home screen from most other screens in Play Store.

- ▶ Touch the **Play Store** icon  at the top left corner the screen.

## Downloading and Installing Applications

When you find an application you want, you can install it on your phone.

### To download and install an application

**NOTE** Before you can download a paid application, you must set up a billing arrangement.

1. Find an application you want and open its details screen.
2. Touch **Install** (for free applications) or the **Price** button (for paid applications).

#### **WARNING!**

Read this screen carefully. Be especially cautious with applications that have access to many functions or to a significant amount of your data. Once you accept on this screen, you are responsible for the results of using this item on your phone.

3. If you agree to the application's access requirements, touch **Accept & download** (for free applications) or **Accept & buy** (for paid applications).
  - ▶ If you selected a paid application, you're redirected to the Google Checkout™ screen to pay for the application before it's downloaded to your phone.
  - ▶ After accepting the application's access requirements, you receive a series of notifications as the application is downloaded and then installed on your phone.

When the application is installed, you can touch the notification to open the application or open it by touching its icon in the Applications screen.

You have 15 minutes to try out an application and, if you decide you don't want it, to uninstall it for a refund.

If you have another Android™ phone, you can download a paid application to that phone using the same Play Store account, at no additional charge.

### To create a Google Checkout™ account

You must have a Google Checkout™ account associated with your Google Account to purchase items from Play Store.

- ▶ On your computer, go to <http://checkout.google.com> to establish a Google Checkout™ account.

### OR

- ▶ The first time you use your phone to buy an item from Play Store, you're prompted to enter your billing information to set up a Google Checkout™ account.

### WARNING!

When you've used Google Checkout™ once to purchase an application from Play Store, the phone remembers your password, so you don't need to enter it the next time. For this reason, you should secure your phone to prevent others from using it without your permission.

## Music

### Transferring Music Files to Your Phone

The **Music** application plays audio files that are stored on your phone's microSD card. Copy audio files from your computer onto the microSD card before you open the Music application.

**NOTE** The LG USB driver needs to be installed on your PC before connecting your phone to transfer music.

#### To copy music files onto the phone's microSD card

1. Connect the phone to your computer with a USB cable. If the default connection mode is not set to Media sync (MTP), open the **Notifications panel** and touch **USB connected > Media sync (MTP)**. Your computer will prompt you with different actions to take. Choose to open the folder to view files.
  - ▶ Use the computer to organize your audio files then create a music folder at the top level of the microSD card.

**NOTE** The phone can use a removable microSD card to store user content, such as photos, videos, and voice recordings.

If the USB connection mode is set to Media sync (MTP) when connecting the phone to a PC via USB cable, one Portable Devices drive will be displayed on your PC, one for the internal memory and another for the microSD card (if installed). You can copy files to and from both disk drives.
2. Use the computer to copy music and other audio files into the folder that you created on the microSD card.
  - ▶ You can use subfolders on the microSD card to organize your music files or you can simply copy the audio files to the top level of the microSD card.
3. To disconnect your phone, open the **Notifications panel** and touch **USB connected > Charge only**. Then disconnect the USB cable from the phone.

## Opening Music and Working with Your Library

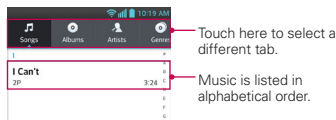
After you've copied some music onto your microSD card you can open the Music application and view your library of music files, sorted in one of five ways.

### To open the Music Player and view your music library

- ▶ From the Home screen, touch the **Apps Key**  > **Music** .

The Music application searches the microSD card for music files you copied to your card, then builds a catalog of your music based on the information contained in each music file. This can take from a few seconds to several minutes, depending on how many files you have copied onto the microSD card.

When the catalog is complete, the Music library screen opens with tabs at the top of the screen that you can touch to view your music library organized by Songs, Albums, Artists, Playlists, or Folders.



You can return to the main Library screen from the Playback screen in the Music Player application by touching  at the top left corner of the screen.

### To search for music in your library

1. Open the main Library screen then touch the **Menu Key**  > **Search**.
2. Start typing the name of the artist, album, or track you're looking for. Matching songs are displayed in the list below the search box.
3. Touch a matching song to play it or touch a matching album or artist to view a list of associated songs.

### To delete a song from the microSD card

You can delete music from the microSD card.

- ▶ Touch and hold a song in a Library list. In the Context menu that opens, touch **Delete > Yes**.

**OR**

- ▶ On the Playback screen, touch the **Menu Key**  > **Delete > Yes**.

You can also delete music files from the microSD card when your phone is connected to the computer. To do this, browse for the music files you want to delete then delete them from the folder.

### Playing Music

You can listen to music using the phone's built-in speaker, through a wired headset, or through a wireless Bluetooth stereo headset that supports the A2DP profile.

#### To play music

- ▶ Touch a song in your library to listen to it.

**OR**

- ▶ While viewing a list of tracks in an album, touch the **Menu Key**  > **Select to play**. Then select the songs you want to play and touch **Play**.

The Playback screen opens and the song you touched or the first song in the album or other playlist starts to play. Your music continues to play even when you switch applications or receive a phone call. The tracks in the current playlist play in order until it reaches the end, then stops. If you choose a repeat option, playback only stops when you stop it.

You can return to the Playback screen from most other screens in the **Music** application by touching the currently playing song at the bottom of the screen.

You can return to the Playback screen from any other application by opening the Notifications panel and touching the ongoing music notification.

### To control playback

The Playback screen contains several icons that you can touch to control the playback of songs, albums, and playlists:

|                                                                                   |                                                                                                                                |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
|  | Touch to pause playback.                                                                                                       |
|  | Touch to resume playback.                                                                                                      |
|  | Touch to skip to the next track in the album, playlist, or shuffle. Touch and hold to fast-forward.                            |
|  | Touch to restart the current track or skip to the previous track in the album, playlist, or shuffle. Touch and hold to rewind. |
|  | Touch to open the current playlist.                                                                                            |
|  | Touch to play the current playlist in shuffle mode (tracks are played in random order).                                        |
|  | Touch to set repeat mode to repeating all songs, repeat current song, or repeat off.                                           |
|  | Touch to set the Dolby Mobile setting, which enhances your music listening.                                                    |
|  | Touch to search for the video on YouTube.                                                                                      |

## Videos

You can play a wide variety of videos using the Videos application. The Videos application supports the following file formats: MP4, AVI, WMV, MOV, MKV, 3GP, 3G2 (Codecs: MPEG4, H.263, H.264, VC-1, DivX®, and Xvid).

**NOTE** Supported file formats are dependent on the software version of the phone.

### To open the Videos application

1. From the Home screen, touch the **Apps Key**  > **Videos** .
2. Touch the video you want to play.

## Playback controls

Touch the screen to display the playback controls. The following options allow you to control the video playback:

|                                                                                   |                                                                                   |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  | Pause playback.                                                                   |
|  | Play a video file.                                                                |
|  | Touch and hold to fast-forward playback.                                          |
|  | Touch to return to the beginning of the video. Touch and hold to rewind playback. |
|  | Touch to change the ratio of the video screen.                                    |

## Videos options

The following options are available from the Videos main screen:

- ▶ **Details** Touch and hold a video, then touch **Details**.
- ▶ **View type** Touch  to display your videos in list, grid, or folder view.
- ▶ **Sort** Touch  to sort the videos by title, date, size, or type.
- ▶ **Share** Touch  to share videos with others.
- ▶ **Auto play next** Touch the **Menu Key**  > **Auto play next** > **On/Off** to automatically play the next video after the current video or stop playback.
- ▶ **Delete** Touch the **Menu Key**  > **Delete** to delete the desired videos.
- ▶ **DivX® VOD** Touch the **Menu Key**  > **DivX® VOD** to view the DivX registration code needed to register the device in order to play protected content.

# YouTube™

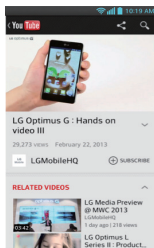
## Opening YouTube and Watching Videos

You can browse, search for, view, upload, and rank YouTube videos on your phone with the **YouTube** application.

### To open the YouTube application

- ▶ From the Home screen, touch the **Apps Key**  > **YouTube** .

Touch a video to watch it or touch the **Menu Key**  to take other actions on the video.



### To watch and interact with YouTube videos

- ▶ Touch a video to play it.



- ▶ Touch the screen to view the Playback controls. You can pause and play the video or drag the slider to the point in the video you want to watch.
- ▶ Touch the **Back Key**  to stop playback and return to the videos list.

- ▶ Touch the **Menu Key**  for the following options: **Add to, Like, Dislike, Copy URL, Flag, Pair with YouTube TV, Settings, Feedback, and Help.**

For details about these features, visit the YouTube website.

## To search for videos

1. At the top of the main YouTube screen, touch .
2. Enter the text to search for or touch the **Microphone icon**  to search by voice.
3. Touch a suggestion below the search box or touch the **Search Key**.
4. Scroll through the search results and touch a video to watch it

## FileShare

FileShare application allows you to share multimedia files and documents to other devices via Wi-Fi Direct.

1. To access this application, from the Home screen, tap **Apps Key**  > **FileShare** .
2. Choose the types of content you would like to share. Tap **Images, Videos, Music, or Documents.**
3. Tap the **Send file** icon  in the upper right corner of the screen, then checkmark the file(s) you want to share.
4. Tap **Send** to begin scanning for available devices, then select the device you want from the list.

## SmartShare

**SmartShare** uses DLNA (Digital Living Network Alliance) technology to share digital content through a wireless network. Both devices must be DLNA certified to support this feature.

### To turn SmartShare on and allow sharing contents

1. From the Home screen, touch the **Apps Key**  > **SmartShare** .
  2. Touch the **Menu Key**  > **Settings**.
  3. Touch **Discoverable** to checkmark it to allow your device to be detected by other devices.
    - ▶ Checkmark **Always accept requests** if you would like to automatically accept sharing requests from other devices.
    - ▶ Checkmark **Receive files** if you would like to allow other devices to upload media files to your phone.
- NOTE** Make sure that the microSD card is correctly mounted and the Receive files option in the Settings menu is checkmarked.
4. Under the SHARED CONTENTS section, touch to checkmark the types of content you would like to share. Choose from **Photos**, **Videos**, and **Music**.
  5. SmartShare is now activated and ready to share the available content type(s) you selected for sharing.

### To control your renderer devices

Let your renderer device (e.g., TV) play multimedia contents from your remote content library (e.g., PC).

**NOTE** Make sure that the DLNA functionality of your devices are properly configured (e.g., TV and PC).

1. From the Home screen, touch the **Apps Key**  > **SmartShare** .
2. Touch the **To** icon  at the top right of the screen, then touch the device you want to use from the renderer device list.
3. Touch the **From** icon  at the top left of the screen, then touch the device that has your remote content library.

4. You can browse through the content library to find the content(s) you want.
5. Touch and hold a content thumbnail and touch **Play** or touch the **Menu Key**  > **Play**.

### To share contents from your phone to your renderer device (e.g., TV)

1. While watching your Photos or videos using the **Gallery** application, touch one of the icons  /  /  at the top of the screen.
2. Select the device from renderer lists to play the files.

**NOTE** The Videos uses similar steps to share contents.

 : Need to connect to a network. Allows you to connect.

 : Allows you to select a device on the network.

 : Content is currently being shared through SmartShare.

**NOTICE** Check that your device is connected with your home network using a Wi-Fi connection to use this application. Some DLNA enabled devices (e.g., TV) support only the DMP feature of DLNA and will not appear in the renderer device list. Your device might not be able to play some contents.

### To download contents from the remote content library

1. From the Home screen, touch the **Apps Key**  > **SmartShare** .
2. Touch the **From** icon  at the top left of the screen, then touch the device that has your remote content library.
3. You can browse through the content library to find the content(s) you want.
4. Touch and hold a content thumbnail, then touch **Download** in the Context menu.

**NOTICE** Some content types are not supported.

### To upload contents to the remote content library

1. From the Home screen, touch the **Apps Key**  > **SmartShare** .
2. Touch the **From** icon  at the top left of the screen, then select **My phone**.
3. You can browse through the local content library to find the content(s) you want.
4. Touch and hold a content thumbnail, then touch **Upload** in the Context menu.

5. Select the device of the remote content library to be uploaded.

- NOTICE**
- Some DLNA enabled devices do not support the DMS upload functionality and will not upload files.
  - Some content types are not supported.

## Voice Recorder

The **Voice Recorder** application records audible files for you to use in a variety of ways. Use them simply to remind you about something you don't want to forget (like a grocery list) or record sound effects that you can attach to a message or set as a ringtone for calls.

### Record a Voice Memo

1. From the Home screen, touch the **Apps Key**  > **Voice Recorder** .
  - ▶ Touch  to change the storage location.
  - ▶ Touch  to change the recording mode.
2. Touch  to start recording.
3. Speak into the microphone.
4. When you're finished, touch .

The recording is automatically saved to your recordings list.

- ▶ Touch  to listen to your recording.
- ▶ Touch  to record a new voice memo.
- ▶ Touch  to view your list of recordings.

### Play a Voice Memo

1. From the Home screen, touch the **Apps Key**  > **Voice Recorder** .
2. Touch .
3. Touch the voice memo you wish to play.

- NOTE** You can send the voice memo to others by touching and holding a voice memo and touching **Share**.

## Managing your Voice Memos

1. From the Home screen, touch the **Apps Key**  > **Voice Recorder** .
2. Touch .
3. Touch the following options from the quick action bar at the top of the screen.
  - ▶ Touch the **New** icon  to return to the Voice Record screen to record a new audio file.
  - ▶ Touch the **Share** icon  to share the voice memo with others.
  - ▶ Touch the **Delete** icon  to delete voice memo(s). Touch the voice memo(s) to delete then touch **Delete** > **Yes**.

**NOTE** You can also touch and hold an audio file in the list to select **Details**, **Share**, **Delete**, **Trim**, or **Rename** in the Context menu that appears.

## Calendar

### Viewing Your Calendar and Events

Open the **Calendar** application to view events you've created or that others have invited you to.

When you first set up your phone, you configured it to use an existing Google Account or you created a new account. The first time you open the Calendar application on your phone, it displays any existing calendar events from your Google Account on the web.

#### To open the Calendar application

- ▶ From the Home screen, touch the **Apps Key**  > **Calendar** .

Events from each account you've added to your phone and configured to synchronize calendars is displayed in your Calendar.

Events from each calendar account are displayed in a different color.

#### To change your calendar view

No matter where you are in the Calendar application, you can easily switch calendar views. Simply touch the date in the upper left corner of the screen to display a drop-down menu of calendar views. Touch **Day**, **Week**, **Month**, or **Agenda**.

- ▶ To view more information about an event in the Agenda, Day, or Week view, touch the event.
- ▶ To view the events of a day in Month view, touch a day. The event will be displayed. Touch the event to view its details.

#### To add an event

1. Touch  and select the calendar you wish to add the event to.
2. Enter the necessary information and touch **Save**.

## Calculator

Allows you to perform simple mathematical calculations.

### To open and use the Calculator

- ▶ From the Home screen, touch the **Apps Key**  > **Calculator** .



- ▶ Enter numbers and arithmetic operators on the Basic panel.
- ▶ Drag the Basic panel to the left to open the Advanced panel.
- ▶ Touch and hold the Calculator's display to open a Context menu where you can copy what you've entered and access other tools.
- ▶ Touch the **Delete Key**  to delete the last number or operator you entered. Touch and hold the **Delete Key**  to delete all of the entered information.
- ▶ Touch the **Menu Key**  to open an Options menu to clear your calculation(s) history or change panels between Advanced and Basic.
- ▶ Touch  to view your calculator history. You can touch an entry to calculate it again or edit it.

## Alarm/Clock

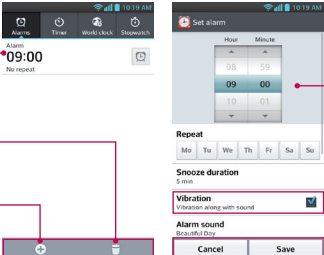
You use the **Alarm/Clock** application to access the Alarms, Timer, World clock, and Stopwatch functions. These functions are accessed by touching the tabs across the top of the screen.

### To open the Clock application

- ▶ From the Home screen, touch the **Apps Key**  > **Alarm/Clock** .
- ▶ Touch the **Alarms** tab  at the top of the screen, if necessary.

### To set an alarm

1. Open the **Alarm/Clock** application and touch .



**Existing Alarm**  
Touch here to modify this alarm's settings.

**Delete Icon**  
Touch here to delete an alarm.

**New Alarm Icon**  
Touch here to create a new alarm.

**Time Wheel**  
Scroll here to change the alarm time.

**Repeat Field**  
Touch here to set which days to activate the alarm.

2. Scroll the time wheel to set the alarm time.
  - ▶ Enter the alarm time manually by scrolling the hour (or minutes) field.
  - ▶ Scroll to **AM** or **PM** to set for morning or afternoon.
3. Touch the day(s) when you want the alarm to sound in the **Repeat** field. If you don't touch the Repeat setting, the alarm sounds only the one day you set it.
4. Touch **Snooze duration** to open a dialog box to set the amount of time to wait before sounding the alarm again if it is not dismissed. You can set the alarm to ring repeatedly from 5 minutes up to 1 hour.
5. Touch **Vibration** to checkmark the setting and have the phone vibrate, in addition to playing the ringtone.

6. Touch **Alarm sound** to select a ringtone from the alarm sounds or a music file. The ringtone plays briefly when you select it.
7. Slide the **Alarm volume** bar to adjust the volume.
8. Touch **Auto app starter** if you want to set an application to run when the alarm is stopped.
9. Touch **Puzzle lock** to checkmark the setting, which requires you to wake up enough to solve a simple puzzle to dismiss the alarm.
10. Touch **Memo** to enter a name for the alarm.
11. When you're finished, touch the **Save** button.

### When the alarm sounds

- ▶ Touch the **Dismiss** button or, if set, use the gesture feature of simply flipping the device over to stop the alarm.
- ▶ Touch the **Snooze** button to stop the alarm for the snooze duration you set.

**NOTE** If **Puzzle lock** is set to On, using the gesture feature of flipping the device over will snooze the alarm instead of turning it off.

### Setting the Timer

The **Timer** application can be used to alert you with an audible signal when a set amount of time has passed.

1. Open the **Alarm/Clock** application and touch the **Timer** tab .
2. Set the time by touching the **Hour**, **Minute** and/or **Second** on the time.
3. Touch **Vibration** to checkmark the setting and have the phone vibrate when the set time expires.
4. Touch **Alert sound** to select an alert tone for the timer from the alarm sounds or a music file.
5. Touch the **Start** button at the bottom of the screen. to begin the time countdown.
6. Once the alarm sounds, touch the **Stop** button to stop the timer.

## Setting the World Clock

This feature allows you to set up a list of cities to easily check current times in other time zones with a quick glance.

1. Open the **Alarm/Clock** application and touch the **World clock** tab .
2. Touch the **New City** icon  at the bottom of the screen then search through the available cities for the one you want.

## Managing the World Clock Cities

- ▶ Touch the **New City** icon  at the bottom of the screen to select another city for your list.
- ▶ Touch the **Delete** icon  at the bottom right corner of the screen to select one or more cities select a city to delete from your list.
- ▶ Touch the **Menu Key**  to delete all of the cities in your World Clock list.
- ▶ Touch and hold an entry in the list to open a Context menu to select **Set daylight savings** or **Delete**.

## Using the Stopwatch

This feature allows you to use your phone as a Stopwatch.

1. Open the **Alarm/Clock** application and touch the **Stopwatch** tab .
2. Touch the **Start** button at the bottom of the screen to start timing and touch the **Stop** button to stop the time.  
You can use the Lap function by touching the **Lap** button to record lap times.
3. Touch the **Reset** button to reset the Stopwatch or the **Resume** button to resume it.

## Polaris Office 4

With Polaris Office 4, you can view, create and edit document files on your device. The loaded files can be from microSD cards of your device, or from downloaded email attachments.

The Polaris Office 4 application supports the following file formats: txt, doc, docx, xls, xlsx, ppt, pptx, pdf.

### Create a New Document

- 1 From the Home screen, touch the **Apps Key**  > **Polaris Office 4** .
- 2 Register your name and email address on the User registration page.
- 3 Touch **List view**, **Grid view** or **Favorites** for folders and documents on your microSD card.
- 4 Touch  to start a new document.
- 5 Touch a document type.
- 6 Enter contents in the document using the tools at the bottom of the screen and the on-screen keyboard.
- 7 When you're done working on the document, touch  > **Save** (or **Save as** to enter a new document name) to save.
- 8 Enter the document name and tap **Save**.
- 9 Tap the **Back Key**  to exit.

### View and edit a document on your device

- 1 From the Home screen, tap the **Apps Key**  > **Polaris Office 4** .
- 2 Touch **List view**, **Grid view** or **Favorites** for folders and documents on your microSD card.
- 3 Move to the folder that contains the file that you want to open if it is not in the root directory.
- 4 Touch the document that you want to view or edit.

**NOTE** You can also open an attachment in an email by tapping the attachment in the message.

- 5 The document opens for you to view. If you want to edit it, touch anywhere on the screen.
- ▶ To move between pages or pan through the document, scroll in the corresponding direction.
  - ▶ To change the zoom level, simply pinch-to zoom to achieve the zoom level you want.
  - ▶ Use the toolbar at the top of the screen to edit the document (Word, Excel, or PowerPoint file).

## Tasks

The **Tasks** application can be synchronized with MS Exchange account. You can create task, revise it and delete it in MS Outlook or MS Office Outlook Web Access.

### To open the Tasks application

From the Home screen, tap the **Apps Key**  > **Tasks** .

### To Synchronize MS Exchange

1. From the Home screen, tap the **Menu Key**  > **System settings**.
2. Touch **Accounts & sync** > **ADD ACCOUNT**.
3. Touch **Microsoft Exchange** and set up an account.
4. When the sync settings are displayed, make sure to checkmark **Sync Tasks**.

## File Manager

The **File Manager** application allows you to manage files in your internal/external storage.

### To open the File Manager application

From the Home screen, tap the **Apps Key**  > **File Manager** .

### File Manager Options

- ▶ : Allows you to create a new folder.
- ▶ : Allows you to move files and folders to another folder.
- ▶ : Allows you to delete files and folders.
- ▶ : Allows you to search for files.

Tap the **Menu Key**  to access the following options.

- ▶ **Sort by:** Allows you to sort files and folders by Name, Size, Date, and Type.
- ▶ **View by:** Allows you to change the view mode to List or Grid.
- ▶ **Copy:** Allows you to copy files and folders and paste them in another location.
- ▶ **Share:** Allows you to share files and folders with others.
- ▶ **Zip:** Allows you to compress files and folders into a .zip file.
- ▶ **Exit:** Allows you to exit the application.

## Settings

The **Settings** application contains most of the tools for customizing and configuring your phone. All of the settings in the Settings application are described in this section. For settings specific to the Chrome application, see the Chrome section and for settings specific to the Google Account, see the Gmail section.

### To open the Settings application

- ▶ From the Home screen, tap the **Menu Key**  > **System settings**.

OR

- ▶ From the Home screen, tap the **Apps Key**  > **Settings** .

## WIRELESS & NETWORKS

The Wireless and Networks section allows you to configure and manage your device's wireless radio communications.

### Airplane mode

Tap the **Airplane mode** switch  to toggle between On and Off. Turning Airplane mode on disables all wireless connections.

### Wi-Fi

Tap the **Wi-Fi** switch  to toggle between On and Off. Tap **Wi-Fi** to access the following Wi-Fi settings:

#### WI-FI NETWORKS

The list of all of the Wi-Fi networks that are within access range. Tap one to access it.

**NOTE** Tap **SEARCH** at the bottom of the screen to scan for available Wi-Fi networks. Tap **ADD NETWORK** at the bottom of the screen to add a new network.

From the Wi-Fi networks screen, tap the **Menu Key**  to access the following options.

**WPS Push Button:** Allows you to connect to a secured Wi-Fi network with a WPS button.

**WPS Pin Entry:** Allows you to connect to a secured Wi-Fi network with a WPS PIN.

**Wi-Fi Direct:** Allows direct connection with Wi-Fi devices without any access point.

**Advanced:** Accesses the following advanced Wi-Fi settings.

**Network notification:** Allows you to be notified when an open network is available.

**Keep Wi-Fi on during sleep:** Allows you to set Wi-Fi during sleep.

**Avoid poor connections:** Checkmark to only use a Wi-Fi network that it has a good Internet connection.

**Wi-Fi frequency band:** Allows you to specify the frequency range of operation.

**MAC address:** Displays the MAC address.

**IP address:** Displays the IP address.

## Bluetooth

Tap the **Bluetooth** switch  to toggle between On and Off. Turn it on and tap **Bluetooth** to access the following settings:

**AS870 4G:** Checkmark to allow other Bluetooth devices to see your phone for pairing and connection.

### AVAILABLE DEVICES

The list of all of the available in-range Bluetooth devices.

Tap the **Menu Key**  in the Bluetooth menu to access the following options.

**Rename phone:** Changes your phone name. Enter your new phone name, then tap Save.

**Visibility timeout:** Allows you to set the amount of time other Bluetooth devices can see your phone for pairing and connection.

**Show received files:** Displays a list of your Bluetooth received files.

**Device search option:** Allows you to select the type of Bluetooth device(s) you want to search for. Choose from All devices, Headset, Mobile phone, PC, or Input device (keyboard, mouse, etc.). The default setting is All devices.

**NOTE** Tap **Search for devices** at the bottom of the screen to search for in-range Bluetooth devices.

## Mobile data

This menu allows you to manage your mobile data usage.

Tap the **Mobile data** switch  to toggle between On and Off.

**Limit mobile data usage:** Checkmark to limit your mobile data. Your mobile data connection will be disabled when you reach the limit you set.

**Alert me about data usage:** Checkmark to allow your phone to alert you when your mobile data usage reaches the warning amount you have set.

**Data usage cycle:** Displays your current data usage cycle. Tap the drop-down menu icon  to change the cycle date.

**Data usage graphic:** Displays your data usage on a graph.

**Data usage applications:** Applications are displayed with their data usage on a bar graph. Tap one to see more detailed information.

To access advanced options, tap the **Menu Key** .

**Data roaming:** Checkmark to allow you to use data connections when you are roaming.

**Restrict background data:** Checkmark to disable sync in the background while using a mobile network.

**Auto-sync data:** Checkmark to set the device to sync contact, calendar, email, bookmark, and social network image data automatically.

**Show Wi-Fi usage:** Checkmark to view your data usage via Wi-Fi.

**Mobile hotspots:** Allows you to search for and use another device's mobile network.

## Call

This menu allows you to manage various call settings.

### END CALL SETTINGS

**Save unknown numbers:** Add unknown numbers to contacts after a call.

### OTHER CALL SETTINGS

**Vicemail:** Tap to set your voicemail details, including the following:

**Service:** Changes your voicemail service. The default is **My carrier**.

**Setup:** Alters your voicemail access (e.g., the number that dials your voicemail service).

**Notification sound:** Sets the sound for notifications.

**Vibrate:** Sets the vibrate mode.

**Incoming call popup:** Display incoming call popup when using camera and videos

**Decline with message:** When you want to reject a call, you can send a quick message using this function. Add or edit messages from this menu.

**Privacy keeper:** Sets whether the phone displays the caller's information when you receive a call.

**Power button ends call:** Checkmark to allow you to end voice calls by pressing the **Power/Lock Key** .

**Auto retry:** Sets the amount of time to wait before automatically redialing a call that failed to connect.

**TTY mode:** Sets the TTY mode to communicate with other TTY devices.

**DTMF tones:** Sets the length of the DTMF tones.

**Auto answer:** Sets the time before a connected hands-free device automatically answers an incoming call.

**Call restrictions:** Restrict incoming or outgoing calls.

**Call duration:** Check call duration.

**Voice privacy:** Checkmark to enable enhanced privacy mode.

## Tethering & Networks

This menu allows you to manage other network and wireless settings.

### TETHERING

**Portable Wi-Fi hotspot:** Allows you to turn Portable Wi-Fi hotspot on/off and configure your hotspot.

**Help:** Displays information regarding the portable Wi-Fi hotspot function.

### NETWORK SETTINGS

**VPN:** Sets up and manages Virtual Private Networks (VPNs).

**Mobile networks:** Sets up options for roaming, networks, and APNs (Access Point Names).

## DEVICE

The Device section allows you to configure and manage the general device functions such as sound and display options.

### Sound

This menu allows you to manage your device's sound settings.

#### SOUND PROFILE

**Quiet mode:** Tap the Quiet mode switch  to toggle between On and Off. Tap **Quiet mode** to set the days and times to automatically turn off all sounds except alarms and media. You can also set call exceptions.

**Sound profile:** Sets the Sound profile to **Sound**, **Vibrate only** or **Silent**.

**Volumes:** Allows you to individually set the volumes for Phone ringtone, Notification sound, Touch feedback & system, and Music, video, games, and other media. Move the slider icon on each volume bar to set the volume.

## RINGTONE & NOTIFICATIONS

**Ringtone with vibration:** Sets the phone to also vibrate when you receive calls.

**Phone ringtone:** Sets the ringtone for calls. You can also add a ringtone by tapping the **New** icon  at the top right corner of the screen.

**Notification sound:** Allows you to set the sound for notifications. You can also add a sound by tapping the **New** icon  at the top right corner of the screen.

## FEEDBACK & VIBRATE

**Gentle vibration:** Checkmark to gradually increase the vibration strength up to the full vibration set.

**Vibrate strength:** Sets the vibration strength for Incoming calls, Notifications, and Vibrate on touch.

**Incoming call vibration:** Sets the the type of vibration for incoming calls. Choose from Long lasting, Rapid, Short repeated, Standard, or Ticktock.

**Dial pad touch tones:** Checkmark to set the phone to make a sound when you tap the dialpad.

**Touch sounds:** Checkmark to set the phone to make a sound when you tap an item to activate it (e.g., tapping a checkbox).

**Screen lock sound:** Checkmark to set the phone to make a sound when the screen is locked using the Power/Lock Key and also when it is unlocked.

**Emergency tone:** Sets the device's behavior when an emergency call is placed.

**Vibrate on touch:** Checkmark to set the phone to vibrate when you tap the front keys.

## Display

This menu allows you to manage your phone's display settings.

## SCREEN

**Brightness:** Adjusts the brightness of the screen. For best battery performance, use the dimmest comfortable brightness.

**Screen timeout:** Sets the amount of time before the screen times-out.

**Auto-rotate screen:** Checkmark to set the phone to automatically rotate the screen based on the phone orientation (portrait or landscape).

## FONT

**Font type:** Sets the type of font used for the phone and menus.

**Font size:** Sets the size of the font displayed in the phone and menus.

## ADVANCED SETTINGS

**Front touch key light:** Sets whether or not the front keys are illuminated and how long they will stay lit.

**Notification flash:** Sets which notifications will flash the LED light.

**Motion sensor calibration:** Calibrates the device to improve the tilt accuracy and the sensor's speed.

## Home screen

This menu allows you to manage your Home screen settings.

**Theme:** Sets the screen theme for your device.

**Animation:** Sets the device to use the available animations.

**Screen swipe effect:** Sets the effect when you swipe to change screens.

**Wallpaper:** Sets the wallpaper to use on your Home screen.

**Portrait view only:** Checkmark to always display the Home screen in portrait view.

**Scroll screens circularly:** Checkmark to set the Home screens to scroll continuously, eliminating the need to scroll back in the opposite direction when you reach one end.

**Home backup & restore:** Allows you to backup and restore app, widget, and theme configurations for the Home screen.

## Lock screen

This menu allows you to manage your Lock screen settings.

### SCREEN

**Select screen lock:** Sets how to secure your phone from unauthorized use.

**Wallpaper:** Sets your Lock screen wallpaper.

**Clocks & shortcuts:** Sets the clock widget displayed on the Lock screen. Also allows you to change the shortcuts on the Lock screen when the unlock method is set to Swipe or Pattern.

**NOTE** To display the shortcuts from the Pattern Lock screen, pause at the final dot in your unlock pattern. Tap a shortcut to open and use it.

**Screen effect:** Sets the screen effect when unlocking the device.

**Owner info:** Checkmark to set the device owner's name to be displayed on the Lock screen. Tap **Settings**  to enter the text to be displayed as the Owner info.

### LOCK TIME

**Lock timer:** Sets the amount of time before the screen automatically locks after the screen has timed-out.

**Power button instantly locks:** Checkmark to instantly lock the screen when the **Power/Lock Key**  is pressed.

### FEEDBACK

**Vibrate on touch:** Checkmark to turn on touch feedback when unlocking the screen.

**Make pattern visible :** When using Pattern, checkmark to turn on pattern visible when unlocking the screen.

**Improve face matching:** When using Face Unlock, this option captures your face in different conditions for better security.

**Liveness check:** When using Face Unlock, this option requires you to blink your eyes while unlocking.

## Gestures

This menu allows you to manage various gesture settings.

**Move Home screen items:** Checkmark to be able to move items within the Home screen or applications by touching and holding an item, then tilting the device in the direction you want to move it.

**Tilt sensitivity:** Allows you to test and adjust the sensitivity of the tilt sensors used for the Home screens and applications. To adjust the sensitivity, tap the **Default sensitivity** checkbox, then move the slider along the bar toward slow or fast to suit your preference.

**Silence incoming calls:** Checkmark to enable you to simply flip the device to mute an incoming call ringtone.

**Snooze or stop alarm:** Checkmark to enable you to simply flip the device to snooze or stop the alarm.

**Pause video:** Checkmark to enable you to simply flip the device to pause the currently playing video.

**Help:** Opens a help guide on how to use the Gestures features of your device.

## Storage

Use the Storage menu to monitor the used and available space in your phone and on your microSD card. You can also manage your microSD card and, if necessary, erase all of your personal information.

### INTERNAL STORAGE

**Total space:** Displays the total amount of space in the phone's memory. It's listed in Gigabytes and also on a colored bar graph with a color-coordinated list of the applications as well as the amount of space they use. Remaining memory space is grey-colored.

### SD CARD

**Total space:** Displays the total amount of memory space on the microSD card. It's listed on a colored bar graph and in Gigabytes.

**Mount/Unmount SD card:** Mounts and unmounts the microSD card from your phone so that you can access its data, format the card or

safely remove it. This setting is dimmed if there's no microSD card installed, if you've already unmounted it, or if you've mounted the microSD card on your computer.

**Erase SD card:** Permanently erases everything on the microSD card and prepares it for use with your phone.

## Battery

### BATTERY INFORMATION

The Battery charge information is displayed on a battery graphic along with the percentage of the remaining charge and its status.

Touch the Battery charge icon to display the Battery use screen to see battery usage level and battery use details. It displays which components and applications are using the most battery power. Tap one of the entries to see more detailed information.

**Battery percentage:** Checkmark to display the battery level percentage on the Status Bar next to the battery icon.

### POWER SAVER

Tap the **Power saver** switch  to toggle between On and Off. Tap **Power saver** to access the following settings:

**Turn Power saver on:** Sets the battery charge percent level to automatically turn on Power saver.

**Power saving items:** Touch to change the desired options for saving energy.

**Power saver tips:** Displays information about the Power saving items.

## Application manager

Use the Application manager menu to view details about the applications installed on your phone, manage their data, and force them to stop.

Select one of the three tabs across the top of the screen to view detailed information for **DOWNLOADED**, **RUNNING** and **ALL** applications.

## PERSONAL

The Personal section allows you to configure and manage your accounts.

### Accounts & sync

Use the Accounts & sync settings to manage your Google™ and other supported accounts. You also use these settings to control data synchronization. You can set how and whether each application sends, receives, and syncs data on their own schedules or whether user data is synchronized automatically.

Gmail™, Calendar, and other applications may also have their own settings to control how they synchronize data; see the sections on those applications for details.

Tap **Accounts & sync** to access the settings below.

**Auto-sync data:** Checkmark to turn on the sync function.

### ACCOUNTS

Displays a list of all of your accounts, including your Google Account. Tap one of the entries to access their settings.

**NOTE** Tap the **ADD ACCOUNT** button at the bottom of the screen to add a new account to your device.

### Location access

Use the Location access menu to set your preferences for using and sharing your location when you search for information and use location-based applications, such as Maps.

**Access to my location:** Tap the Access to my location switch  to toggle between On and Off. **On** allows applications that have asked your permission use your location information.

### LOCATION SOURCES

**GPS satellites:** Checkmark to enable your phone's standalone global positioning system (GPS) satellite receiver to pinpoint your location to within an accuracy as close as several meters ("street level"). Actual GPS accuracy depends on a clear view of the sky and other factors.

**Wi-Fi & mobile network location:** Checkmark to use information from Wi-Fi and mobile networks to determine your approximate location that is used while searching in Google Maps and other applications. When you checkmark this option, you're asked whether you consent to sharing your location anonymously with Google's location service.

## Security

Use the Security menu to configure how to help secure your phone and its data.

### ENCRYPTION

**Encrypt phone:** Allows you to encrypt the phone to keep it secure. After encryption, a PIN or password needs to be entered each time you power the phone on.

### SIM CARD LOCK

**Set up SIM card lock:** Allows you to set if you want to require a PIN to be able to access the SIM card. And, if set, allows you to change the PIN.

### PASSWORDS

**Password typing visible:** Checkmark to briefly show each character of the password as you type so that you can see what you enter.

### PHONE ADMINISTRATION

**Phone administrators:** Allows you to view and/or deactivate device administrators.

**Unknown sources:** Checkmark to allow installation of non-Play Store applications.

### CREDENTIAL STORAGE

**Trusted credentials:** Allows applications to access your phone's encrypted store of secure certificates, related passwords and other credentials. The screen has a **System** tab and a **User** tab. Credential storage is used to establish some kinds of VPN and Wi-Fi connections. This setting is dimmed if you have not set a password to secure your credential storage.

**Install from storage:** Allows you to install a secure certificate from a microSD card.

**Clear credentials:** Deletes all secure certificates and related credentials and erase the secure storage's own password. You are prompted to confirm you want to clear this data.

## Language & input

Use the Language & input menu to select the language for the text on your phone and for configuring the on-screen keyboard. You can also manage your language dictionary for personal words that you've added.

**Language:** Sets the language to use on your device.

**Personal dictionary:** Displays a list of the personal words that you've added that are not in the standard dictionaries.

## KEYBOARD & INPUT METHODS

**Default:** Sets the default keyboard to use when entering text.

**Google voice typing:** Checkmark to select Google voice typing to enter data. Tap **Settings**  to change the Google voice settings.

**LG Keyboard:** Checkmark to select the LG Keyboard to enter data. Tap **Settings**  to change the following settings.

**Input language and type:** Sets the keyboard language and type.

## COMMON SETTINGS

**Word suggestion:** Sets word prediction and auto word correction.

**Auto capitalize:** Checkmark to automatically capitalize the first letter of each sentence.

**Auto punctuation:** Checkmark to insert a period when the space key is double-tapped.

**Voice typing key:** Checkmark to display the Voice typing key on the keyboard.

**Touch feedback:** Sets key preview, sound feedback, and vibrate feedback when typing.

**Handwriting:** Checkmark to set handwriting style. Tap **Settings**  to set the pen thickness, color, and delay time.

**Path keyboard:** Checkmark to enter a word by drawing a path through all of the letters.

## ADVANCED SETTINGS

**Hide keyboard:** Checkmark to allow the keyboard to be hidden by swiping it downward.

## CHINESE

**Fuzzy pinyin:** Checkmark to automatically correct common pinyin mistakes.

## ABOUT

**Software version:** Displays the LG Keyboard software version.

## SPEECH

**Voice Search:** Allows you to set voice search options.

**Language:** Sets the Google search by voice language.

**Speech output:** To turn on speech output only when you've got a headset attached to your phone, select Hands-free only.

**Block offensive words:** Checkmark to hide offensive voice results.

**Hotword detection:** Checkmark to allow you to say "Google" when viewing the Google Now screen rather than touching the Microphone icon to initiate a voice search or action.

**Download offline speech recognition:** Sets one or more additional languages for speech recognition when you don't have a network connection.

**Text-to-speech output:** Allows you to set the preferred speech engine and other general settings.

**Google Text-to-speech:** Sets your preferred text-to-speech. Tap **Settings**  to set the language and other settings.

## GENERAL

**Speech rate:** Sets the speed at which the text is spoken.

**Listen to an example:** Plays a short demonstration of speech synthesis.

## MOUSE/TRACKPAD

**Pointer speed:** Sets the pointer speed.

## Backup & reset

This menu allows you to back up and erase your data.

### BACKUP & RESTORE

**Backup my data:** Checkmark to backup application data, Wi-Fi passwords, and other settings to Google servers.

**Backup account:** Sets the account where you want to backup your data.

**Automatic restore:** Checkmark to allow the device to automatically restore backed up settings and data when an application is reinstalled on the device.

### PERSONAL DATA

**Factory data reset:** Allows you to erase all of the data on the phone. Read the warning, then tap **Reset phone** at the bottom of the screen and **Erase everything** to confirm.

## SYSTEM

The System section allows you to manage various system settings.

### Date & time

This menu allows you to manage your date and time formats.

**Use 24-hour format:** Checkmark to display the time using the 24-hour time format (for example, 13:00 instead of 1:00 pm).

**Select date format:** Sets the format for displaying dates.

### Accessibility

Use the Accessibility menu to configure any accessibility plug-ins you have installed on your phone.

### SERVICES

**TalkBack:** Allows you to set up the Talkback function which assists people with impaired vision by providing verbal feedback. Tap the

**TalkBack** switch  at the top right corner of the screen to turn it on. Tap the **SETTINGS** button at the bottom of the screen to adjust the TalkBack settings.

## **VISION**

**Install web scripts:** Allows you to enable (or disable) installation of web scripts.

**Large text:** Checkmark to increase the size of the text.

**Invert color:** Toggle the switch to invert color.

**Shades:** Set the screen to be shade of black.

## **HEARING**

**Vibrate type:** Set vibrate type for calls, notifications and touch feedbacks.

**Mono audio:** Checkmark to allow headset sound routed both right and left channel.

## **PHYSICAL AND MOTOR**

**Touch & hold delay:** Sets the touch and hold delay (short, medium, or long).

**Universal touch:** Switch to toggle between on and off. Universal touch can replace all hardware buttons.

## **SYSTEM**

**Auto-rotate screen:** Checkmark to allow the device to rotate the screen depending on the device orientation (portrait or landscape).

**Speak passwords:** Checkmark so that you can say your log in passwords (instead of typing your passwords).

**Power button ends call:** Checkmark so that you can end voice calls by pressing the Power/Lock Key [icon].

**Easy access:** Allows you to select easy access.

**Text-to-speech output:** Text-to-speech output provides audible readout of text, for example, the contents of text messages, and the Caller ID for incoming calls.

## PC connection

This menu allows you to manage the default USB connection type and other functions.

### USB CONNECTION

**USB connection type:** Sets the default mode when connecting your phone to a PC using a USB Cable.

**Ask on connection:** Checkmark to confirm the USB connection type when you connect to a PC.

**Help:** Displays connection settings information.

## Developer options

Keep in mind that turning on these developer settings may result in irregular device behavior.

**Take bug report:** This will collect information about your current device state, to send as an email message.

**Desktop backup password:** Sets a password to back up the desktop.

**Stay awake:** Checkmark to set the screen to never timeout while charging.

**Protect SD card:** Checkmark to protect the microSD card. When the microSD card is protected, applications must request permission to read data from external storage.

### DEBUGGING

**USB debugging:** Checkmark to turn on debug mode when USB is connected.

**Allow mock locations:** Checkmark to set the device to a mock location.

**Select debug app:** Allows you to select the debugging application.

**Wait for debugger:** Checkmark to wait for debugger. Debugged application waits for debugger to attach before executing.

## INPUT

**Show touches:** Checkmark to show visual feedback when the screen is tapped.

**Show touch data:** Checkmark to make touch data visible on the screen.

## DRAWING

**Show layout bounds:** Checkmark to show clip bounds, margins, etc.

**Show GPU view updates:** Checkmark to flash views inside windows when drawn with the GPU.

**Show screen updates:** Checkmark to flash areas of the screen when they are updated.

**Window animation scale:** Allows you to set the window animation scale.

**Transition animation scale:** Allows you to set the transition animation scale.

**Animator duration scale:** Allows you to set the animator duration scale.

**Disable HW overlays:** Checkmark to use the GPU for screen compositing.

**Force GPU rendering:** Checkmark to use the 2D hardware acceleration in applications.

## MONITORING

**Enable strict mode:** Checkmark to flash the screen when applications operate for a long period of time on the main thread.

**Show CPU usage:** Checkmark to overlay the current CPU usage on the screen.

**Profile GPU rendering:** Checkmark to measure rendering time in adb shell `dumpsys gfxinfo`.

**Enable traces:** Allows you to select enabled traces.

## APPS

**Don't keep activities:** Checkmark to force stop every activity as soon as the user leaves it.

**Background process limit:** Allows you to set the background process limit.

**Show all ANRs:** Checkmark to show a dialog box when applications running in the background are not responding.

## About phone

This menu allows you to manage your software updates and view various information relating to your device.

**Software update:** Allows you to check for Android system software updates and other current information.

**Network:** Allows you to view your network, network type and strength, service state, roaming status, mobile network state and IP address.

**Phone identity:** Allows you to view the model number, phone number, PRL version, MIN, ESN, IMEI, ICCID, and up time.

**Battery:** Allows you to view battery status, battery level, and battery use.

**Hardware information:** Allows you to view Wi-Fi MAC address and Bluetooth address.

**Software information:** Allows you to view Android version, baseband version, kernel version, build number, software version, and script version.

**Legal information:** Allows you to view open source licenses and Google legal information.

**Patent information:** Displays LG patent information.

## **TIA Safety Information**

The following is the complete TIA Safety Information for wireless handheld phones.

### **Exposure to Radio Frequency Signal**

Your wireless handheld portable phone is a low power radio transmitter and receiver. When ON, it receives and sends out Radio Frequency (RF) signals.

In August, 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones.

Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

ANSI C95.1 (1992) \*

NCRP Report 86 (1986)

ICNIRP (1996)

\*American National Standards Institute; National Council on Radiation Protection and Measurements; International Commission on Non-Ionizing Radiation Protection

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

The design of your phone complies with the FCC guidelines (and those standards).

### **Antenna Care**

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

## Phone Operation

**NORMAL POSITION:** Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.

## Tips on Efficient Operation

For your phone to operate most efficiently:

Don't touch the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

## Driving

Check the laws and regulations on the use of wireless phones in the areas where you drive and always obey them. Also, if using your phone while driving, please observe the following:

- Give full attention to driving – driving safely is your first responsibility;
- Use hands-free operation, if available;
- Pull off the road and park before making or answering a call if driving conditions or the law require it.

## Electronic Devices

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

## Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of six (6) inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

**Persons with pacemakers:**

- Should ALWAYS keep the phone more than six (6) inches from their pacemaker when the phone is turned ON;
- Should not carry the phone in a breast pocket;
- Should use the ear opposite the pacemaker to minimize the potential for interference;
- Should turn the phone OFF immediately if there is any reason to suspect that interference is taking place.

**Hearing Aids**

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider (or call the customer service line to discuss alternatives).

**Other Medical Devices**

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

**Health Care Facilities**

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.

**Vehicles**

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

**Posted Facilities**

Turn your phone OFF in any facility where posted notices so require.

## **Aircraft**

FCC regulations prohibit using your phone while in the air. Switch OFF your phone before boarding an aircraft.

## **Blasting Areas**

To avoid interfering with blasting operations, turn your phone OFF when in a “blasting area” or in areas posted: “Turn off two-way radio”. Obey all signs and instructions.

## **Potentially Explosive Atmosphere**

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

## **For Vehicles Equipped with an Air Bag**

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

## Safety Information

Please read and observe the following information for safe and proper use of your phone and to prevent damage. Also, keep the user guide in an accessible place at all times after reading it.

### **Violation of the instructions may cause minor or serious damage to the product.**

- Do not disassemble or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.
- Only use the battery for the system for which it is specified.
- Only use the battery with a charging system that has been qualified with the system per CTIA Certification Requirements for Battery System Compliance to IEEE 1725. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard. Only authorized service providers shall replace battery. (If the battery is non-user replaceable).
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion or other hazard.
- For those host devices that utilize a USB port as a charging source, check the host device's user manual for the USB-IF logo or some other means to ensure that it has completed the USB-IF compliance program.

## Charger and Adapter Safety

- The charger and adapter are intended for indoor use only.
- Insert the battery pack charger vertically into the wall power socket.
- Only use the approved battery charger. Otherwise, you may cause serious damage to your phone.
- Use the correct adapter for your phone when using the battery pack charger abroad.

## Battery Information and Care

- Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.
- Please dispose of your battery properly or take it to your local wireless carrier for recycling.
- The battery doesn't need to be empty before recharging.
- Use only LG-approved chargers specific to your phone model since they are designed to maximize battery life.
- Do not disassemble or short-circuit the battery.
- Keep the battery's metal contacts clean.
- Replace the battery when it no longer provides acceptable performance. The battery can be recharged several hundred times before replacement.
- Recharge the battery after long periods of non-use to maximize battery life.
- Battery life will vary due to usage patterns and environmental conditions.
- Use of extended backlighting, Browser, and data connectivity kits affect battery life and talk/ standby times.
- The self-protection function of the battery cuts the power of the phone when its operation is in an abnormal state. In this case, remove the battery from the phone, reinstall it, and turn the phone on.

## Explosion, Shock, and Fire Hazards

- Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it's dirty.
- When using the power plug, ensure that it's firmly connected. If not, it may cause excessive heat or fire.
- If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.
- Don't short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag may short-circuit the + and – terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

## General Notice

- Using a damaged battery or placing a battery in your mouth may cause serious injury.
- Do not place items containing magnetic components such as a credit card, phone card, bank book, or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please contact an LG Authorized Service Center to replace the damaged antenna.

- Do not immerse your phone in water. If this happens, turn it off immediately and remove the battery. If the phone does not work, take it to an LG Authorized Service Center.
- Do not paint your phone.
- The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ringtones, text messages, voice messages, photos, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- When you use the phone in public places, set the ringtone to vibration so you don't disturb others.
- Do not turn your phone on or off when putting it to your ear.
- Use accessories, such as earphones and headsets, with caution. Ensure that cables are tucked away safely and do not touch the antenna unnecessarily.
- Do not use your device for long periods of time while a part of your body is making direct contact with it. The temperature of the product may increase during normal operation and this may result in harming or burning your skin.

## **Caution:** **Avoid potential hearing loss.**

Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cellular telephones, at high volume settings for long durations may lead to permanent noise induced hearing loss. This includes the use of headphones (including headsets, earbuds and Bluetooth® or other wireless devices). Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound and distorted hearing. Individual susceptibility to noise-induced hearing loss and other potential hearing problems varies.

The amount of sound produced by a portable audio device varies depending on the nature of the sound, the device, the device settings and the headphones. You should follow some commonsense recommendations when using any portable audio device:

- Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noise-cancelling headphones to block out background environmental noise.
- Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

You can obtain additional information on this subject from the following sources:

### **American Academy of Audiology**

11730 Plaza American Drive, Suite 300

Reston, VA 20190

Voice: (800) 222-2336

Email: [info@audiology.org](mailto:info@audiology.org)

Internet: [www.audiology.org](http://www.audiology.org)

**National Institute on Deafness and Other Communication Disorders**

National Institutes of Health

31 Center Drive, MSC 2320

Bethesda, MD USA 20892-2320

Voice: (301) 496-7243

Email: [nidcdinfo@nih.gov](mailto:nidcdinfo@nih.gov)

Internet: <http://www.nidcd.nih.gov/health/hearing>

**National Institute for Occupational Safety and Health**

Hubert H. Humphrey Bldg.

200 Independence Ave., SW

Washington, DC 20201

Voice: 1-800-35-NIOSH (1-800-356-4674)

Internet:

<http://www.cdc.gov/niosh/topics/noise/default.html>

## FDA Consumer Update



The U.S. Food and Drug Administration's Center for Devices and Radiological Health Consumer Update on Mobile Phones:

### 1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of Radio Frequency (RF) energy in the microwave range while being used. They also emit very low levels of RF when in standby mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

### 2. What is the FDA's role concerning the safety of wireless phones?

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit Radio Frequency (RF) energy at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

Although the existing scientific data does not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;

- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

The FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones.

The FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

### **3. What kinds of phones are the subject of this update?**

The term “wireless phone” refers here to handheld wireless phones with built-in antennas, often called “cell”, “mobile”, or “PCS” phones. These types of wireless phones can expose the user to measurable Radio Frequency (RF) energy because of the short distance between the phone and the user’s head.

These RF exposures are limited by FCC safety guidelines that were developed with the advice of the FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called "cordless phones," which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

#### **4. What are the results of the research done already?**

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of Radio Frequency (RF) energy exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we do not know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

#### **5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?**

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect, if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but ten or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

## **6. What is the FDA doing to find out more about the possible health effects of wireless phone RF?**

The FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to Radio Frequency (RF) energy.

The FDA has been a leading participant in the World Health Organization International Electro Magnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The project has also helped develop a series of public information documents on EMF issues.

The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research And Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts with independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA

will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

### **7. How can I find out how much Radio Frequency energy exposure I can get by using my wireless phone?**

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit Radio Frequency (RF) energy exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless phones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (<http://www.fcc.gov/cgb/cellular.html>) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

### **8. What has the FDA done to measure the Radio Frequency energy coming from wireless phones?**

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the Radio Frequency (RF) energy exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, "Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques", sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue-simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same

phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

## **9. What steps can I take to reduce my exposure to Radio Frequency energy from my wireless phone?**

If there is a risk from these products - and at this point we do not know that there is - it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to Radio Frequency (RF) energy. Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure. If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna. Again, the scientific data does not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

## **10. What about children using wireless phones?**

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to Radio Frequency (RF) energy, the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly

precautionary; it was not based on scientific evidence that any health hazard exists.

### **11. What about wireless phone interference with medical equipment?**

Radio Frequency (RF) energy from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure Electro Magnetic Interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical Instrumentation (AAMI). The final draft, a joint effort by the FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI.

The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a “compatible” phone and a “compatible” hearing aid at the same time. This standard was approved by the IEEE in 2000.

The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

### **12. Where can I find additional information?**

For additional information, please refer to the following resources:

FDA web page on wireless phones (<http://www.fda.gov>), under “C” in the subject index, select Cell Phones > Research.

Federal Communications Commission (FCC) RF Safety Program (<http://www.fcc.gov/oet/rfsafety/>)

International Commission on Nonionizing Radiation Protection (<http://www.icnirp.de>)

World Health Organization (WHO) International EMF Project (<http://www.who.int/emf>)

Health Protection Agency (<http://www.hpa.org.uk/>)

## 10 Driver Safety Tips

Your wireless phone gives you the powerful ability to communicate by voice almost anywhere, anytime. An important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When operating a car, driving is your first responsibility. When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.
4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
5. Don't take notes or look up phone numbers while driving. If you are

reading an address book or business card, or writing a “to-do” list while driving a car, you are not watching where you are going. It is common sense. Do not get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light, or otherwise stationary. But if you need to dial while driving, follow this simple tip - dial only a few numbers, check the road and your mirrors, then continue.
7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations – with your phone at your side, help is only three numbers away. Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard, or medical emergency. Remember, it's a free call on your wireless phone!
9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a “Good Samaritan” in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.
10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

The above tips are meant as general guidelines. Before deciding to use your mobile device while operating a vehicle, it is recommended that you consult your applicable jurisdiction's local laws or other regulations regarding such use. Such laws or other regulations may prohibit or otherwise restrict the manner in which a driver may use his or her phone while operating a vehicle.

## Consumer Information on SAR

### (Specific Absorption Rate)

This model phone meets the Government's requirements for exposure to radio waves. Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These FCC exposure limits are derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases, the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to the biological effects of RF energy.

The exposure limit for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg). The FCC exposure limit incorporates a substantial margin of safety to give additional protection to the public and to account for any variations in measurements.

Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station

antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model.

This device was tested for typical body-worn operations with the back of the phone kept 0.39 inches (1.0 cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1.0 cm) must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters, and similar accessories containing metallic components may not be used. Body-worn accessories that cannot maintain 0.39 inches (1.0 cm) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines.

The highest SAR value for this model phone when tested for use at the ear is 0.59 W/kg and when worn on the body, as described in this user's manual, is 1.12 W/kg. While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/ea/fccid/> after searching on FCC ID ZNFVS870.

To find information that pertains to a particular model phone, this site uses the phone FCC ID number which is usually printed somewhere on the case of the phone. Sometimes it may be necessary to remove the battery pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at <http://www.ctia.org/>

\*In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

## **FCC Hearing-Aid Compatibility (HAC) Regulations for Wireless Devices**

On July 10, 2003, the U.S. Federal Communications Commission (FCC) Report and Order in WT Docket 01-309 modified the exception of wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require digital wireless phones be compatible with hearing-aids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities.

While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

M-Ratings: Phones rated M3 or M4 meet FCC requirements and are likely

to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings.

T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. T4 is the better/ higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



In the example to the left, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal M5. This should provide the

hearing aid user with “normal usage” while using their hearing aid with the particular wireless phone. “Normal usage” in this context is defined as a signal quality that’s acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

When you’re talking on a cell phone, it’s recommended that you turn the BT (Bluetooth) or WLAN mode off for HAC.

For information about hearing aids and digital wireless phones

Wireless Phones and Hearing Aid Accessibility

<http://www.accesswireless.org/Home.aspx>

FCC Hearing Aid Compatibility and Volume Control

[http://www.fcc.gov/cgb/consumerfacts/hac\\_wireless.html](http://www.fcc.gov/cgb/consumerfacts/hac_wireless.html)



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**1. WHAT THIS WARRANTY COVERS:**

LG offers you a limited warranty that the enclosed subscriber unit and its enclosed accessories will be free from defects in material and workmanship, according to the following terms and conditions:

- (1) The limited warranty for the product extends for TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.
- (2) The limited warranty extends only to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.
- (3) This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S., including Alaska, Hawaii, U.S. Territories and Canada.
- (4) The external housing and cosmetic parts shall be free of defects at the time of shipment and, therefore, shall not be covered under these limited warranty terms.
- (5) Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.
- (6) The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

**2. WHAT THIS WARRANTY DOES NOT COVER:**

- (1) Defects or damages resulting from use of the product in other than its normal and customary manner.
- (2) Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.
- (3) Breakage or damage to antennas unless caused directly by defects in material or workmanship.
- (4) That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the

applicable limited warranty period.

- (5) Products which have had the serial number removed or made illegible.
- (6) This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.
- (7) Damage resulting from use of non LG approved accessories.
- (8) All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.
- (9) Products operated outside published maximum ratings.
- (10) Products used or obtained in a rental program.
- (11) Consumables (such as fuses).

### **3. WHAT LG WILL DO:**

LG will, at its sole option, either repair, replace or refund the purchase price of any unit that does not conform to this limited warranty. LG may choose at its option to use functionally equivalent re-conditioned, refurbished or new units or parts or any units. In addition, LG will not re-install or back-up any data, applications or software that you have added to your phone. It is therefore recommended that you back-up any such data or information prior to sending the unit to LG to avoid the permanent loss of such information.

### **4. STATE LAW RIGHTS:**

No other express warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY APPLICABLE TO THIS PRODUCT.

Some states do not allow the exclusive limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

## **5. HOW TO GET WARRANTY SERVICE:**

If you experience any problems with either the Bluetooth headset or the mobile handset, in each case as may be covered by this limited warranty, you need only return the affected device. For example, if a problem exists with the Bluetooth headset, please **DO NOT** return your mobile handset with the headset. Likewise, if a problem exists with the mobile handset, please **DO NOT** return the Bluetooth Headset with the handset.

To obtain warranty service, please call or fax to the following telephone numbers from anywhere in the continental United States:

**Tel. 1-800-793-8896 or Fax. 1-800-448-4026**

Or visit <http://us.lgservice.com>. Correspondence may also be mailed to:

LG Electronics Service- Mobile Handsets, P.O. Box 240007, Huntsville, AL 35824

## **DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS.**

Please call or write for the location of the LG authorized service center nearest you and for the procedures for obtaining warranty claims.

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